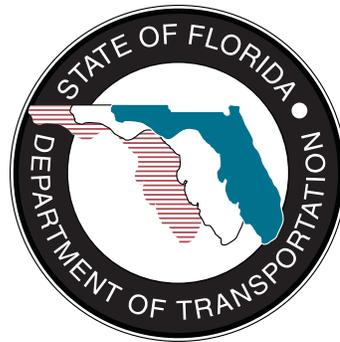
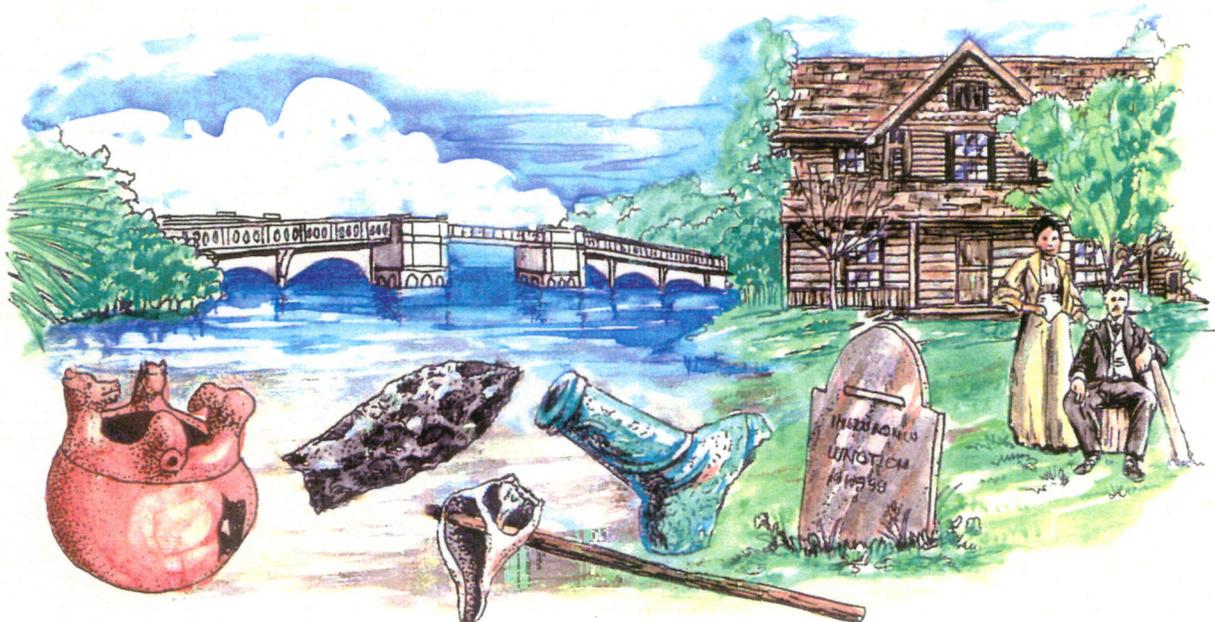


# CULTURAL RESOURCE MANAGEMENT HANDBOOK



Florida Department of Transportation  
Environmental Management Office  
November 2004

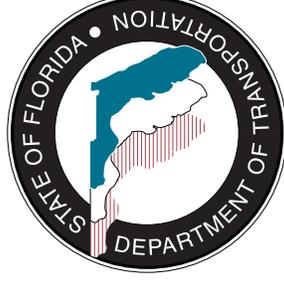
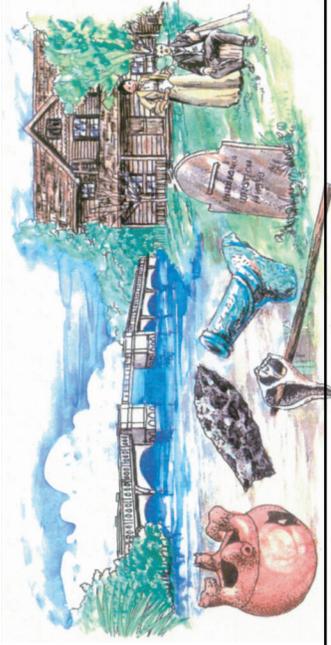


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# CULTURAL RESOURCE MANAGEMENT HANDBOOK



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## OVERVIEW

This Handbook was developed to assist Florida Department of Transportation (FDOT or Department) personnel, including project managers and cultural resource coordinators, as well as cultural resource consultants providing professional services to the Department. The general purpose of this Handbook is to foster quality assurance through the standardization of the way the Department manages its cultural resources across the state. A diverse user group is assumed, ranging from persons with little knowledge of cultural resources to experienced cultural resource professionals.

The Handbook, a companion document to Chapter 12 (revised) of the PD&E Manual, Part 2, is intended as both a training and reference guide. It contains procedures needed to comply with Section 106 of the National Historic Preservation Act (NHPA) and Chapter 267, Florida Statutes. The compliance process begins with the identification and evaluation of cultural resources, the assessment of transportation project effects on these resources, and conditions which the Department and the Federal Highway Administration (FHWA) meet to fulfill the terms of agreement documents so that adverse effects to significant cultural resources are avoided, minimized, or mitigated.

- **Chapter 1** introduces the legislative foundations and standards for cultural resource investigations. The qualifications for cultural resource consultants are also described.
- **Chapter 2** explains the Section 106 process.
- **Chapter 3** discusses the Efficient Transportation Decision Making Process and Cultural Resource Evaluations.
- **Chapter 4** provides a detailed look at the cultural resource assessment survey process for both archaeological sites and historic resources.
- **Chapter 5** explains how identified cultural resources are evaluated as per their eligibility for inclusion in the *National Register of Historic Places*.
- **Chapter 6** details the documentation requirements for the Cultural Resource Assessment Survey Report, as well as Technical Memoranda.
- **Chapter 7** explains the effects determination process, as well as the preparation of agreement documents.
- **Chapter 8** examines the ways in which adverse effects to significant historic resources may be avoided, minimized or mitigated.
- **Chapter 9** examines the mitigation process for significant archaeological resources.
- The **Appendices** provide a list of pertinent federal and state laws, regulations, standards and guidelines; a glossary of key terms; and a list of abbreviations used throughout the Handbook.

## CHAPTER 1 INTRODUCTION

*The Florida Department of Transportation, in conjunction with its federal partner, the Federal Highway Administration, recognizes the government-to-government relationship between Native Americans and the federal government. We note that tribal entities represent sovereign nations, and that any coordination process needs to take place between representatives of two distinct governments. We take seriously our obligations under Section 106 of the National Historic Preservation Act of 1966 (Public Law 89-655, as amended), as implemented by 36CFR 800.2 and 800.4 (Protection of Historic Properties).*

*Therefore, in recognition of the need that Native American issues and concerns be treated in a manner that is consistent with current federal and state legislation, the Federal Highway Administration and the Florida Department of Transportation are currently developing a plan for Native American Consultation. We recognize that the successful development and implementation of the plan requires the thoughtful integration of tribal and project needs, while recognizing the validity of different cultural perspectives. Once complete, this plan will be incorporated into the Department's cultural resource program and reflected in this handbook.*

# CHAPTER 1 INTRODUCTION

## 1.0 OVERVIEW

Various transportation projects conducted by the Florida Department of Transportation (FDOT or Department) require cultural resource investigations to locate, document, evaluate, assess effects on, and avoid or mitigate adverse impact to archaeological sites and historical resources. The purpose of this Handbook is to provide guidelines and standards for planning and performing such work.

*The level of detail is intended to provide FDOT personnel with a working knowledge of the Department's cultural resource management process. Consultants will find what is required to perform a complete and sufficient cultural resource assessment.*

The primary audience for this document is FDOT personnel and cultural resource consultants who provide services on behalf of the Department. However, the staff of the federal and state agencies, local governments, historic preservation groups, and Native American tribes will also find the Handbook informative. The Handbook describes in detail the required procedures for conducting cultural resource assessment surveys and mitigation projects for both archaeological sites and historic resources. The goal is to ensure the integrity and quality of the work effort by providing a set of standards by which an assessment's effectiveness and adequacy can be measured.

This chapter begins with a definition of cultural resources. It then examines the legislative foundations and standards for conducting cultural resource investigations, from site identification to mitigation measures. The minimum professional qualifications for cultural resource consultants are also provided. The discussion is presented in the following manner:

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**Cultural resources** refers to archaeological sites, historic structures, objects, and districts, which are typically 50 or more years old. Significant cultural resources are those which meet the [Criteria of Significance](#) as established by the *National Register of Historic Places (NRHP)* and maintain their integrity, that is, the ability to convey the quality or qualities for which they are considered exceptionally important in history. Significant cultural resources are synonymous with "Historic Properties" as defined by [36 CFR Part 800](#) (revised 1/11/01) implementing Section 106 of the [National Historic Preservation Act of 1966](#) (as amended).

Cultural resources are found both above ground and below ground. Generally, but not always, archaeological sites are found below ground. Archaeological sites, also referred to as **archaeological resources**, represent the locations of precontact or historic occupations or activities. They may be evidenced by a single piece of chipped stone – the by-product of precontact tool manufacture or modification – or the extensive ruins of a historic period military fortification. In some cases, archaeological sites may be associated with either standing or nonextant historic structures.

**Historic structures** may include bridges, residences, commercial buildings, objects, roadways, causeways or constructed features, etc. which, with few exceptions, are at least 50 years old. **Historic districts** are associated buildings which retain integrity as a whole. Examples of historic districts include the commercial center of a small town or a residential neighborhood. **Cemeteries and burial places**, both precontact and historic, are also considered cultural resources. Such sites may be considered eligible for inclusion in the *NRHP* if they meet special requirements. These requirements are discussed in detail in the [National Register Bulletin 41](#) “Guidelines for Evaluating and Registering Cemeteries and Burial Places.”

In addition to archaeological sites and historic structures, rural historic landscapes and traditional cultural properties are other types of cultural resources which may need to be addressed. A **rural historic landscape** is a geographic area that historically has been shaped or modified by human activity, occupancy, or intervention, and that possesses a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features. Rural historic landscapes commonly reflect the day-to-day occupational activities of people engaged in traditional work such as farming, mining, and fishing. Large acreage and a proportionately small number of buildings and structures differentiate rural historic landscapes from other kinds of historic properties. Examples of a rural historic landscape include a fishing village with dwellings, boats, wharves and canals, as well as a farmstead containing homes, outbuildings, barns, sheds, fences, roads, and fields. [National Register Bulletin 30](#) “Guidelines for Evaluating and Documenting Rural Historic Landscapes” provides guidelines on the evaluation of rural historic landscapes.

**Traditional cultural properties** are properties eligible for inclusion in the *NRHP* that are associated with cultural practices or beliefs of a living community. These practices or beliefs must be rooted in that community’s history and be important in maintaining the continuing cultural identity of the community. Examples include a locality used by generations of a Native American group for rituals, as well as an ethnic neighborhood that reflects the cultural values and traditions of its inhabitants through architectural details, organization of space, and activities. [National Register Bulletin 38](#) “Guidelines for Evaluating and Documenting Traditional Cultural Properties” provides guidelines for evaluating and documenting traditional cultural properties.

## 1.1 LEGAL MANDATES FOR CULTURAL RESOURCE INVESTIGATIONS

A body of federal and state laws and regulations mandates that the transportation project development process take into consideration cultural resources that may be affected by proj-

ect activities. The [National Historic Preservation Act \(NHPA\) of 1966](#) (Public Law 89-665, as amended), and implementing regulations (36 CFR Part 800 revised 1/11/01), [Executive Order 11593](#), and the provisions within [Chapter 267](#) of the Florida Statutes (F.S. revised 2001), contain legislation requiring an archaeological and historical assessment of all transportation projects. Other pertinent legislation addressing cultural resources includes the [National Environmental Policy Act \(NEPA\) of 1969](#) (Public Law 91-190), the [Department of Transportation Act \(DOTA\) of 1966](#) (Public Law 89-670), the [Intermodal Surface Transportation Efficiency Act \(ISTEA\) of 1991](#), the [Transportation Equity Act for the 21st Century of 1998](#) (Public Law 105-178), the [Archaeological and Historic Preservation Act of 1974](#) (Public Law 93-291), the [Emergency Archaeological Properties Acquisition Act of 1988](#) (Chapter 253.027, Florida Statutes) , Chapter 90-259, [Laws of Florida](#), and [Offenses Concerning Dead Bodies and Graves](#) (Chapter 872, Florida Statutes).

*Whether a transportation project is federally funded or state funded, the same requirements for the assessment of cultural resources apply. The primary difference is that FHWA is the lead agency for federally funded projects; for state funded projects the FDOT is the responsible agency and coordinates with the State Historic Preservation Officer (SHPO) directly.*

FDOT compliance with applicable federal and state mandates is accomplished by adherence to the [Section 106 process](#) for federally funded or assisted projects and the historic preservation compliance review program of the Florida Department of State, [Division of Historical Resources](#) (DHR) for projects involving state funds. In order to avoid confusion, the DHR has incorporated the Section 106 process into the state’s uniform compliance review program. For more information on this program, the reader is referred to “The Historic Preservation Compliance Review Program of the Florida Department of State, Division of Historical Resources: A Guide to the Historic Preservation Provisions of State and Federal Environmental Review Laws” (Final Draft Document, November 1990). The primary difference between the two review processes is the involvement of the [Federal Highway Administration](#) (FHWA) and the [Advisory Council on Historic Preservation](#) (ACHP) on federally funded or assisted projects. With respect to the procedures necessary to identify, evaluate, and document cultural resources that will be affected by FDOT undertakings, the two processes are identical and the standards and guidelines developed for federally funded or assisted projects are also applicable to state funded or assisted projects.

Presented below are brief overviews of selected laws and regulations applicable to transportation project implementation, including:

- National Historic Preservation Act (NHPA)
- National Environmental Policy Act (NEPA)
- Department of Transportation Act (DOTA)
- Executive Order 11593
- Executive Order 13175
- Archaeological and Historic Preservation Act

- Intermodal Surface Transportation Efficiency Act
- Transportation Equity Act for the 21st Century
- Florida Historical Resources Act
- Chapter 90-259, Law of Florida (L.O.F.)
- Chapter 253.027, Florida Statutes (F.S.) (Emergency Archaeological Property Acquisition Act)
- Chapter 872, Florida Statutes (F.S.) (Offenses Concerning Dead Bodies and Graves)

### **1.1.1 National Historic Preservation Act (NHPA) of 1966, as amended 1992**

Among the key provisions of the NHPA is Section 106 (16 U.S.C. 470f) which requires all federal agencies (including the FHWA) to take into consideration the effect of federally assisted, licensed or permitted projects on cultural resources that are listed, or eligible for listing, on the [\*National Register of Historic Places \(NRHP\)\*](#). It also requires that the ACHP be afforded an opportunity to comment on such effects. The Section 106 process also has an aggressive public involvement policy, and encourages “maximum public participation”.

The process for accomplishing the provisions of Section 106 is contained in the implementing regulations [36 CFR Part 800](#) (revised 1/11/01) issued by the ACHP. In recognition of the fact that not all significant archaeological and historic resources may have been identified and recorded within a project area, 36 CFR Part 800.4(b) requires that federal agencies make reasonable and good faith efforts to identify *any* cultural resources (including unrecorded and previously recorded properties) that may be affected by their undertakings, and evaluate the eligibility of these resources for listing in the *NRHP*. The reason for relocating previously recorded resources is that changing perceptions of significance may justify a reevaluation of properties that were previously determined to be either eligible or ineligible for the *NRHP* (36 CFR 800.4[c]).

[The Section 106 process](#) is described in detail in Chapter 2 of this Handbook.

**Section 110** of the NHPA also sets forth the requirements of the FHWA as a federal agency for dealing with historic properties above and beyond the agencies’ Section 106 responsibilities. *For example*, Section 110 (a) requires federal agencies to give priority to the use of historic properties for agency purposes. Decisions to use or not to use historic properties must then be reviewed under Section 106. Section 110(b) requires federal agencies to document historic properties that may be destroyed or altered as a result of federal actions or assistance. [The Section 106 process](#) provides the means for deciding what kinds of documentation to do, and where resulting documents should be filed. Section 110(f) addresses impacts on National Historic Landmarks (NHLs).

### **1.1.2 National Environmental Policy Act (NEPA) of 1969**

The importance of cultural resources to the nation is reflected in the [National Environmental Policy Act of 1969](#) wherein it is stated that it is the policy of the federal government “to use all practicable means and measures . . . to create and maintain conditions under which man and nature can exist in productive harmony” (Section 101[a]). In order to carry out this policy, the

NEPA declares that it shall be the continuing responsibility of the federal government to “preserve important historic, cultural, and natural aspects of our national heritage.” Consequently, Section 102(c) requires that an **Environmental Impact Statement (EIS)** be prepared when federal actions will significantly affect the quality of the human environment, including cultural resources.

The NEPA process consists of an evaluation of the environmental impacts of a federal-aid transportation project on significant cultural resources. The NEPA process is the framework for environmental impact documentation for the FHWA and allows for public participation in the consideration of impacts to cultural resources. Implementing regulations developed by the FHWA are 23 CFR 771 “Environmental Impact and Related Procedures.”

Compliance with NEPA can and should be coordinated with Section 106 review, although compliance with one statute does not substitute for compliance with another. Studies and documents prepared under Section 106 are often coordinated with those completed under NEPA. For transportation projects, demonstration of Section 106 compliance is often in the NEPA environmental documentation.

### **1.1.3 Department of Transportation Act of 1966**

Under the provisions of Section 4(f) of the [Department of Transportation Act of 1966](#), the Department of Transportation is prohibited from using any historic site of national, state or local significance (i.e., eligible for the *NRHP*) for public transportation purposes without first determining that there is no prudent and feasible alternative to the use of such land. If no prudent and feasible alternative exists, then the Department is required to develop measures to minimize harm to the resource resulting from the transportation project. FHWA regulations 23 CFR 771.135 specifically address the evaluation of Section 4(f) resources and impacts. Refer also to Chapter 13 (revised 1998) of the [PD&E Manual, Part 2](#).

### **1.1.4 Other Applicable Federal Legislation**

[Executive Order 11593](#) (see 36 CFR Part 60, 63, and 800), signed by President Richard M. Nixon in 1971, requires all federal agencies to identify, and take steps to avoid impact to, archaeological and historic properties under their jurisdiction that are eligible for listing in the *NRHP*. It also calls for the complete documentation of any *NRHP*-eligible site or property that will be demolished as a result of a federal undertaking. [Executive Order 13175](#), signed by President William J. Clinton in 2000, renews federal commitment to meaningful consultation with Native American tribes concerning federal actions; renews federal commitment to recognition of tribal sovereignty, and recognizes the government-to-government relationship between Native American tribes and the U.S. government. The [Archaeological and Historic Preservation Act of 1974](#) (16 USC 469) requires federal agencies to fund impact mitigation measures when their activities threaten to destroy or damage *NRHP*-eligible properties. The [Intermodal Surface Transportation Efficiency Act of 1991 \(ISTEA\)](#) (Public Law 102-240) provides funding for transportation-related enhancement projects, including “rails to trails” programs as well as the rehabilitation of significant historic transportation facilities such as railroad depots. The Transportation Equity Act for the 21st Century (1998) reaffirms the commitment to historic preservation established in the origi-

nal act and confirms the eligibility of historic preservation projects through a number of links to transportation systems: functional, historical, economic, social, and visual. The [Native American Graves Protection and Repatriation Act of 1990 \(NAGPRA\)](#) (25 USC 3001 et seq.) addresses the proper treatment of Native American human remains and funerary and sacred objects.

### **1.1.5 Florida Historical Resources Act**

[Chapter 267 of the Florida Statutes \(Florida Historical Resources Act\)](#), the principal state law regarding the protection of archaeological and historical resources, contains requirements similar to those of the federal NHPA. The Act declares it to be state policy to protect and preserve archaeological and historical sites that “have scientific or historical value or are of interest to the public” (Chap. 267.061[1][a]). [The Division of Historical Resources](#) (DHR) is charged with administering the act and, on behalf of the state, with implementing the provisions of the National Historic Preservation Act. The DHR is responsible for cooperating with federal and state agencies to promote and ensure the preservation of archaeological and historical resources, and is directed to assist each level of state government in carrying out its respective preservation programs. Chapter 267.061(2)(a) requires that each state agency consider the effects of an undertaking on any historic property that is eligible for inclusion in the *NRHP*. Chapter 267.061(2)(b) requires that each state agency consult DHR concerning any action or assisted action that results in substantial alteration or destruction of a historic property. Chapter 267.061(2)(c) requires that each state agency exercise caution to assure that any historic property under its ownership or control is not inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly.

### **1.1.6 Other Applicable State Legislation**

Other state laws containing provisions for the protection of cultural resources include Chapter 90-259, [Chapters 253](#), and [872, F.S. Chapter 90-259, L.O.F.](#) amended Chapter 267, F.S. to establish a procedure to encourage state agencies to use historic structures when acquiring additional space. State agencies are directed to give preference to the acquisition and use of historic properties when feasible and prudent to do so.

[Chapter 253.027, F.S. \(Emergency Archaeological Property Acquisition Act of 1988\)](#) provides a procedure to purchase archaeological and historical resources of major statewide significance to ensure their protection. This act segregates \$2 million annually for the emergency acquisition of such properties that are endangered by development.

In 1987, [Chapter 872, F.S. \(Offenses Concerning Dead Bodies and Graves\)](#) was amended to make it a third degree felony to willfully and knowingly disturb, destroy, remove or damage any unmarked human burial. The law pertains to any human burials, human skeletal remains, and associated burial artifacts on public or private lands in the state. The law’s intent is to accord equal treatment to human burials regardless of ethnic origin, cultural background or religious affiliation. The implementing rule for this law ([Chap. 1A-44](#)) specifies the procedures to follow in the event that unmarked burials are encountered during a project, the criteria to be used by the State Archaeologist in determining whether the Division of Historical Resources will assume jurisdiction over

an unmarked burial, and the responsibilities of the State Archaeologist and others in the event that the DHR does assume jurisdiction.

## 1.2 CONSULTANT QUALIFICATIONS

### 1.2.1 Personnel Standards

*All of the qualified personnel assigned to a project should perform activities directly related to their specific area of expertise.*

Personnel qualified to conduct cultural resource projects for the FDOT are those individuals who meet at least the minimum criteria for historians, archaeologists, architectural historians and other professionals as set forth in [Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines](#) published in the *Federal Register*, 1983, Vol. 48, No. 190, pages 44738-44739 and [Chapter 1A-46.004, Florida Administrative Code](#), "Criteria for Qualifications for Archaeologists." An additional consideration is that all Principal Investigators should be able to demonstrate appropriate knowledge and experience pertinent to the state of Florida. This ensures that individuals responsible for supervising FDOT related cultural resource projects have the requisite knowledge of regional prehistory and history to make informed decisions regarding *NRHP* eligibility. Moreover, it ensures that these individuals are familiar with the types of resources likely to be encountered during FDOT cultural resource projects, as well as the appropriate methods for identifying, evaluating, and documenting these resources.

Cultural resource contractors shall submit resumes of Principal Investigators and other supervisory personnel, as well as any special consultants, to the appropriate Environmental Management Office (EMO) for review prior to the initiation of individual projects. A **Principal Investigator** is herein defined as the person or persons responsible for supervising the identification, evaluation, and documentation of archaeological and/or historic resources pursuant to FDOT cultural resource projects. In addition to providing academic qualifications and general work experience, the resumes shall document and provide references for FDOT cultural resource project experience, or experience with similar federal undertakings, timely project completion and successful FHWA/SHPO review. In other words, the contractor shall provide the EMO with sufficient information to evaluate a contractor's ability to handle the projects in question and indicate who will be responsible for each task in the project. If senior personnel changes during the course of the project, documentation for the individuals who will replace these professionals must also be provided by the contractor for review and approval by the appropriate EMO.

It is also necessary that all of the qualified personnel assigned to a project should perform project activities directly related to their specific area of expertise. In other words, archaeologists will not conduct historic building surveys, nor will historians or architectural historians describe and evaluate archaeological sites. This will ensure that individuals conducting specific tasks meet the professional qualifications specified herein, as well as those of *The Secretary of the*

*Interior's Standards and Guidelines* and the professional qualification of the [Division of Historical Resources](#), and will perform the necessary work in a credible and professional manner consistent with the intent of federal and state law. Minimum qualifications for specific areas of expertise are as follows:

**History:** The minimum professional qualifications in history are a graduate degree in history and one of the following:

1. At least two years of full-time experience in research, writing, teaching, interpretation, or other demonstrable professional activity with an academic institution, historic organization or agency, museum, or other professional institution, six months of which must be in Florida
2. Substantial contribution through research and publication to the body of scholarly knowledge in the field of Florida history

**Archaeology:** The minimum professional qualifications in archaeology are a graduate degree in archaeology, or in anthropology with archaeology as a major area of emphasis plus:

1. At least one year of full-time professional experience or equivalent specialized training in archaeological research, administration or management. In addition, a professional in precontact archaeology shall have at least one year of full-time professional experience at a supervisory level in the study of archaeological resources of the precontact period. A professional in historic archaeology shall have at least one year of full-time professional experience at a supervisory level in the study of archaeological resources of the historic period.
2. At least four months of supervised field and analytic experience in general North American archaeology
3. At least six months of field experience in Florida
4. Demonstrated ability to carry research to completion in a timely fashion

**Architectural History:** The minimum professional qualifications in architectural history are a graduate degree in architectural history, art history, historic preservation, or closely related field with course work in American architectural history plus one of the following:

1. At least two years of full-time experience in research, writing, or teaching in American architectural history or restoration architecture with an academic institution, historical organization or agency, museum, or other professional institution, at least six months of which must be in Florida
2. Substantial contribution through research and publication to the body of scholarly knowledge in the field of Florida architectural history

**Architecture:** The minimum professional qualifications in architecture are a professional degree in architecture plus at least two years of full-time experience in architecture (at least six months of which must be in Florida), or a state license to practice architecture.

**Historic Architecture:** The minimum professional qualifications in historic architecture are a professional degree in architecture or a state license to practice architecture, plus one of the following:

1. At least one year of graduate study in architectural preservation, American architectural history, preservation planning, or closely related field
2. At least one year of full-time professional experience on historic preservation projects including at least six months in Florida

Graduate study or experience shall include detailed investigations of historic structures, preparation of historic structures research reports, and preparation of plans and specifications for preservation projects.

### **1.2.2 Facilities and Corporate Standards**

Any institution, corporation or organization sponsoring the qualified professionals performing cultural resource projects for the FDOT must:

1. Provide or demonstrate access to adequate field and laboratory equipment necessary to complete the work required for the project
2. Provide or demonstrate access to adequate facilities necessary for the proper treatment, analysis, and storage of specimens and documents recovered from and/or related to a project

At a minimum, facilities and equipment should include adequate transportation, field equipment, laboratory processing space, research materials (reports, journals, books, maps and other documents), comparative collections, and storage facilities.

### **1.2.3 Insurance**

Any institution, corporation or organization sponsoring the qualified professionals performing cultural resource projects for the FDOT shall be required to have and maintain, at a minimum, the following insurance policies:

1. Standard Workers Compensation
2. Public Liability Insurance with combined bodily limits of at least \$100,000 per person and \$300,000 each occurrence
3. Property Damage Insurance of at least \$100,000 each occurrence
4. Professional Liability Insurance of at least \$100,000

The contractor shall carry and keep in force these policies with a company or companies authorized to do business in Florida. Public liability and property damage insurance shall be maintained for the duration of the project. Professional liability insurance shall be maintained for a minimum of three years after the completion of the project.

### **1.2.4 Quality Assurance**

Quality Assurance (QA) programs are a standard part of FDOT procedures. Consequently, any institution, corporation or organization that conducts cultural resource projects for the FDOT shall establish a Quality Assurance program and will specify an individual within the organization who will have responsibility for implementing the program.

The Quality Assurance Program will ensure that the work performed is in compliance with the FDOT guidelines for cultural resource projects, as well as federal and state standards and guidelines, and that all appropriate agencies have been consulted and notified regarding the project. Minimally, the QA program will include a detailed statement of procedures, evaluation criteria, methods for implementing the program, and a staffing plan for each project. The FDOT may request records of QA actions performed during the course of a project, therefore all QA records must be kept timely. Quality Assurance programs may include periodic QA seminars for internal peer review and assistance, presentation of advances in field or laboratory methods, preservation techniques, and changes in law or policy that may affect FDOT cultural resource projects.

The individual identified as the QA Director should be a senior staff member. This individual will be responsible for assigning qualified personnel to each project task, reviewing existing and proposed federal, state and local cultural resource legislation and implementing regulations, providing spot checks on field and laboratory procedures, and in-house peer review of project reports. Other issues such as personnel safety can also fall under the responsibility of the QA Director.

## **1.3 FEATURED HYPERLINKS**

36 CFR Part 800 Protection of Historic Properties

<http://www.achp.gov/regs.html>

2000 Florida Statutes

<http://www.flsenate.gov/statutes/index.cfm?StatuteYear=2000>

Advisory Council on Historic Preservation (ACHP)

<http://www.achp.gov/>

Archaeological and Historic Preservation Act of 1974

<http://www2.cr.nps.gov/laws/archpreserv.htm>

Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines

[http://www.cr.nps.gov/local-law/arch\\_stnds\\_9.htm](http://www.cr.nps.gov/local-law/arch_stnds_9.htm)

Chapter 267, F.S. Historical Resources  
Chapter 872, F.S. Offenses Concerning Dead Bodies And Graves  
<http://www.leg.state.fl.us/statutes/index.cfm?Tab=statutes&submenu=1>

Criteria of Significance for NRHP Evaluation  
[http://www.cr.nps.gov/nr/publications/bulletins/nrb15/nrb15\\_2.htm](http://www.cr.nps.gov/nr/publications/bulletins/nrb15/nrb15_2.htm)

Department of Transportation Act of 1966 (DOTA), 49 U.S.C. Section 303  
<http://www.odot.state.or.us/eshtm/cultlaws.htm>

DHR Compliance Review Section  
<http://dhr.dos.state.fl.us/bhp/compliance/index.html>

Division of Historical Resources (DHR)  
<http://dhr.dos.state.fl.us/index.html>

Emergency Archaeological Properties Acquisition Act of 1988 (Chapter 253.027, F.S.)  
<http://www.leg.state.fl.us/Statutes/index.cfm?Tab=Statutes&Submenu=1>

Executive Order 11593  
<http://www.afbca.hq.af.mil/handbook/basis/eo/eo11593.htm>

Executive Order 13175  
<http://www.epa.gov/fedrgstr/eo/eo13175.htm>

Federal Highway Administration (FHWA)  
<http://www.fhwa.dot.gov/index.html>

Historic Preservation Act of 1974  
<http://www2.cr.nps.gov/laws/archpreserv.htm>

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)  
<http://ntl.bts.gov/DOCS/ste.html>

Laws of Florida  
[http://election.dos.state.fl.us/laws/laws\\_proced.shtml](http://election.dos.state.fl.us/laws/laws_proced.shtml)

Native American Grave Protection and Repatriation Act of 1990 (NAGPRA)  
<http://www.usbr.gov/nagpra/>

National Environmental Policy Act of 1969 (NEPA)  
<http://www.achp.gov/relationship.html#NEPA>

National Historic Preservation Act of 1966 (NHPA)  
<http://www2.cr.nps.gov/laws/NHPA1966.htm>

National Register Bulletin 41 - Guidelines for Evaluating and Registering Cemeteries and Burial Places

<http://www.cr.nps.gov/nr/publications/bulletins/nrb41/>

National Register Bulletin 30 - Guidelines for Evaluating and Documenting Rural Historic Landscapes

<http://www.cr.nps.gov/nr/publications/bulletins/nrb30/>

National Register Bulletin 38 - Guidelines for Evaluating and Documenting Traditional Cultural Properties

<http://www.cr.nps.gov/nr/publications/bulletins/nrb38/>

National Register of Historic Places (NRHP)

<http://www.cr.nps.gov/nr/index.htm>

Offenses Concerning Dead Bodies and Graves (Chapter 872)

<http://www.leg.state.fl.us/Statutes/index.cfm?Tab=Statutes&Submenu=1>

PD&E Manual

<http://www.dot.state.fl.us/emo/pubs/pdeman/pdeman.htm>

Section 106 Process

<http://www.achp.gov/work106.html>

Transportation Equity Act for the 21st Century of 1988

<http://www.fhwa.dot.gov/tea21/legis.htm>

**CHAPTER 2**  
**THE SECTION 106 REVIEW PROCESS**

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**2.0 OVERVIEW**

This Handbook chapter addresses applicable requirements set forth in [Section 106 of the National Historic Preservation Act \(NHPA\) of 1966](#) (as amended). Section 106 pertains to actions performed, assisted, permitted, or licensed by a federal agency that may affect historic properties. In regard to most transportation projects in Florida, this is generally the Federal Highway Administration (FHWA) acting in concert with its agent, the Florida Department of Transportation (FDOT).

*Although this discussion is in terms of federal involvement, these actions apply to all levels of projects proposed by the FDOT because state laws and Florida’s historic preservation compliance review program parallel the federal process for Section 106 review.*

In the case of transportation projects, the four-step [Section 106 process](#) is initiated (Step 1) by the FHWA determining whether it has an undertaking that is a type of action that could affect historic properties. If not, the FHWA has no further obligations under Section 106. If potential effects may result, the FHWA identifies the proper parties with which to consult in the Section 106 process concerning the action. The FHWA then determines the appropriate scope of the resource identification process for the action and proceeds to identify (Step 2) potentially affected historic properties. If significant historic properties, i.e., those eligible for listing in the [National Register of Historic Places \(NRHP\)](#), are identified in the project’s Area of Potential Effect, FHWA, in consultation with appropriate parties, makes an assessment of adverse effect on the significant historic resources (Step 3). If no adverse effects are identified the project may proceed. If adverse effects are identified the agency begins consultation to resolve these adverse effects (Step 4) by their avoidance, minimization, or mitigation. Consultation may result in a Memorandum of Agreement (MOA) among consulting parties; the MOA outlines the measures to be taken to resolve the adverse effects. Occasionally, there is no way to resolve the adverse effects of an undertaking and the effects must be accepted in the public interest. The transportation undertaking then proceeds. This chapter presents a simplified description of the Section 106 process as implemented by [36 CFR Part 800](#) (revised, 1/11/01).

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## 2.1 INTRODUCTION TO SECTION 106 OF THE NHPA

[The Section 106 process](#) is a review procedure established by Congress in 1966. The procedures for this process are contained in [Title 36 CFR Part 800](#) (“Protection of Historic Properties”), revised January 11, 2001. Section 106 represents the principal federal review process that looks at how historic properties are affected by projects funded by or under the jurisdiction of federal agencies. It is the statutory responsibility of the federal agency to fulfill the requirements of the Section 106 process and to ensure that an agency official with jurisdiction over an undertaking takes legal and financial responsibility for Section 106 compliance ([36 CFR Part 800.2](#)). Federal agencies under the U.S. Department of Transportation that may be involved in Section 106 actions include the [Federal Highway Administration \(FHWA\)](#), the U.S. Coast Guard, the Federal Aviation Administration, the Federal Transit Administration, and the Federal Railroad Administration. Other federal agencies, such as the U.S. Corps of Engineers, may be involved in the Section 106 process involving transportation projects through the permitting functions of the agency. In the case of most transportation projects, the FDOT is primarily involved with the FHWA as the “involved federal agency” in terms Department activities and acts as the agent of the FHWA in such undertakings. **The FHWA is thus designated as the coordinating agency in the Section 106 process throughout this Cultural Resource Management Handbook.**

Section 106 of the [National Historic Preservation Act of 1966](#) (as amended) states that:

*The head of any federal agency having direct or indirect jurisdiction over a proposed federal or federally-assisted undertaking in any state and the head of any federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the NRHP. The head of any such federal agency shall afford the Advisory Council on Historic Preservation established under Title II of this Act a reasonable opportunity to comment with regard to such undertaking.*

In essence, Section 106 requires federal agencies to:

- Consider the effects their actions (or actions they may assist, permit, or license) may have on *NRHP*-listed or eligible historic properties
- Provide the [Advisory Council on Historic Preservation \(ACHP\)](#) a reasonable opportunity to comment on such actions

The main purpose of [Section 106](#) is to avoid, minimize, or mitigate impacts to significant historic properties resulting from federal actions. Technically, Section 106 applies to:

- Properties that have been formally listed in the *NRHP*
- Properties that have been determined eligible for inclusion in the *NRHP*
- Properties that may be eligible but have not yet been identified and evaluated

The latter is critical to FHWA and FDOT since it is the responsibility of the federal agency involved to identify historic properties and ascertain their potential *NRHP* eligibility following the procedures outlined in the [Advisory Council](#) and National Park Service regulations, [36 CFR Part 800](#).

The underlying philosophy behind Section 106 maintains that the optimal environment will possess a harmonious mix of old and new cultural resources. Section 106 also recognizes that it is not realistic, nor in the public interest, to preserve every historic resource. Therefore, [Section 106](#) does not require preservation in every case, nor does it give the ACHP veto power over a federal agency's actions. It does, however, require full consideration of preservation values by federal agencies compared with the projected benefits of the completed undertaking, costs, and other factors. As a result, final actions performed by federal agencies and reviewed by the Section 106 process can range from avoidance to unmitigated loss of the historic property, as long as consideration of the effects and available options were carefully evaluated.

## 2.2 FHWA AND THE SECTION 106 PROCESS

**As a federal agency, FHWA is the lead agency and directly involved with the Section 106 review process. In turn, FDOT also participates in the Section 106 review process as the agent of the FHWA.** Although policies and procedures change, the FDOT facilitates the 106 process by providing FHWA with the appropriate documentation and assistance at each step. This documentation includes, but is not limited to, Cultural Resource Assessment Surveys (CRASs), Section 106 Consultation Case Reports, and Agreement Documents such as Memoranda of Agreement (MOAs) or Programmatic Agreements (PAs). Additional assistance includes, but is not limited to, gathering of required information and documents, coordination of the Section 106 process, and participation in consultation meetings.

## 2.3 STATE REVIEW AND SECTION 106

For state-funded transportation projects with no federal funding or assistance, the provisions in [Chapter 267, F.S.](#), which mirror the NHPA Section 106 requirements, apply. **In the case of state-funded projects, the lead agency is the FDOT.** Section 106 has been incorporated as part of Florida's uniform historic preservation program. As noted in the DHR's program guidelines, this unified federal-state process avoids confusion. Florida's comprehensive historic preservation statutory framework complements that of the federal government. In many respects, [Chapter 267, F.S.](#) parallels the provisions of the federal NHPA of 1966 (as amended).

## 2.4 OTHER PARTICIPANTS IN THE SECTION 106 PROCESS

In addition to FHWA and the Department, the revised [Section 106](#) regulations (36 CFR Part 800.2(a)(4)) state that FHWA shall involve certain consulting parties in the findings and determinations made during the process. Such consultations should be appropriate to the scale of

the undertaking and the scope of federal involvement. Where applicable, this consultation process should be coordinated with agency procedures and mechanisms established to meet the requirements of other statutes such as those of the [National Environmental Policy Act \(NEPA\)](#) and other regulatory legislation. The consultation process involves seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them in matters arising in the [Section 106 process \(36 CFR Part 800.16\(f\)\)](#). Consulting parties in the Section 106 process include the following:

- **State Historic Preservation Officer (SHPO)**

The Division of Historical Resources (DHR), of the Department of State, is Florida's primary historic preservation agency. The office of the State Historic Preservation Officer (SHPO) is established in DHR. The SHPO is appointed by the Governor and serves at the pleasure of the Secretary of State. The SHPO conducts relations with the representatives of the federal government and with respective states concerning matters of historic preservation. The Historic Preservation Compliance Review Section of DHR is responsible for reviewing and commenting on historic preservation work conducted under [Section 106](#) and [Chapter 267 F.S.](#) (revised 2001).

The SHPO reflects the interests of the state and its citizens in the preservation of their cultural heritage. The SHPO advises and assists federal agencies in carrying out their Section 106 responsibilities and cooperates with such agencies, local governments, organizations and individuals to ensure that historic properties are taken into consideration at all levels of planning and development ([36 CFR Part 800.2 \[c\]\[1\]](#)).

- **Tribal Historic Preservation Officer (THPO)**

Native American coordination, where applicable, is an important FHWA responsibility in the Section 106 process. The THPO is the tribal official appointed by a federally recognized tribe's chief governing body or designated by tribal ordinance or preservation program who has assumed the responsibilities of the SHPO for purposes of Section 106 compliance on tribal lands. Tribal lands refer to lands within the boundaries of any Indian reservation and all dependent Indian communities. A tribal historic preservation representative may be consulted if a THPO has not been officially appointed and certified. In the latter case, the SHPO will also be a consulting party concerning resources on tribal lands. The THPO or an appointed historic preservation representative should also be consulted concerning historic properties of interest to a tribe that are located off tribal lands. Again, the SHPO also participates as a consulting party in such cases.

The FHWA must ensure, where applicable, that federally recognized Native American tribes have a reasonable opportunity to identify concerns, including those of traditional and cultural significance known as "Traditional Cultural Properties," about significant cultural resources in all steps of the [Section 106 process](#). It is FHWA's responsibility to make a reasonable and good faith effort to identify the appropriate tribes to be consulted. Furthermore, the need for confidentiality under certain circumstances should be recognized as an essential part of the consultation process. Finally, consultation with a Native American tribe must recognize the "government-to-government" relationship that exists between the federal government and federally recognized

Native American tribes and should be conducted in a sensitive manner that is respectful of tribal sovereignty. For additional information, see Exhibit 2-1.

- **Advisory Council On Historic Preservation (ACHP)**

The [ACHP](#) provides guidance and assistance in the consultation process and generally oversees the operation of the Section 106 process. The Council also consults with and comments to agency officials on individual undertakings and programs that affect historic properties. It may enter the process of its own accord to ensure adherence to proper policy and procedure or in response to a request from a participating party to provide advice, guidance, and assistance concerning a specific undertaking including functioning in dispute resolution.

- **Representatives of Local Governments**

A representative of a local government with jurisdiction over the area in which the effects of an undertaking may occur is entitled to participate as a consulting party.

- **The Public**

The views of the public ([36 CFR Part 800.2\[d\]](#)) are considered essential to informed decision-making in the Section 106 process. FHWA shall seek and consider the views of the public in a manner commensurate with the nature and complexity of an undertaking and its potential effects on historic properties. As in Native American coordination, confidentiality should be a consideration in certain circumstances. FHWA must, except where confidentiality is to be protected, provide the public with information about an undertaking and seek public comment and input. Where possible, FHWA may use the public involvement process associated with other regulatory requirements to fulfill its responsibility in this area if they are adequate to do so.

- **Additional Consulting Parties**

Certain individuals and organizations with a demonstrated interest in an undertaking may participate as consulting parties in the Section 106 process ([36 CFR Part 800.2\[c\]\[5\]](#)) due to the nature of their legal or economic relation to the undertaking or affected properties or due to their concern with the undertaking's effects on historic properties.

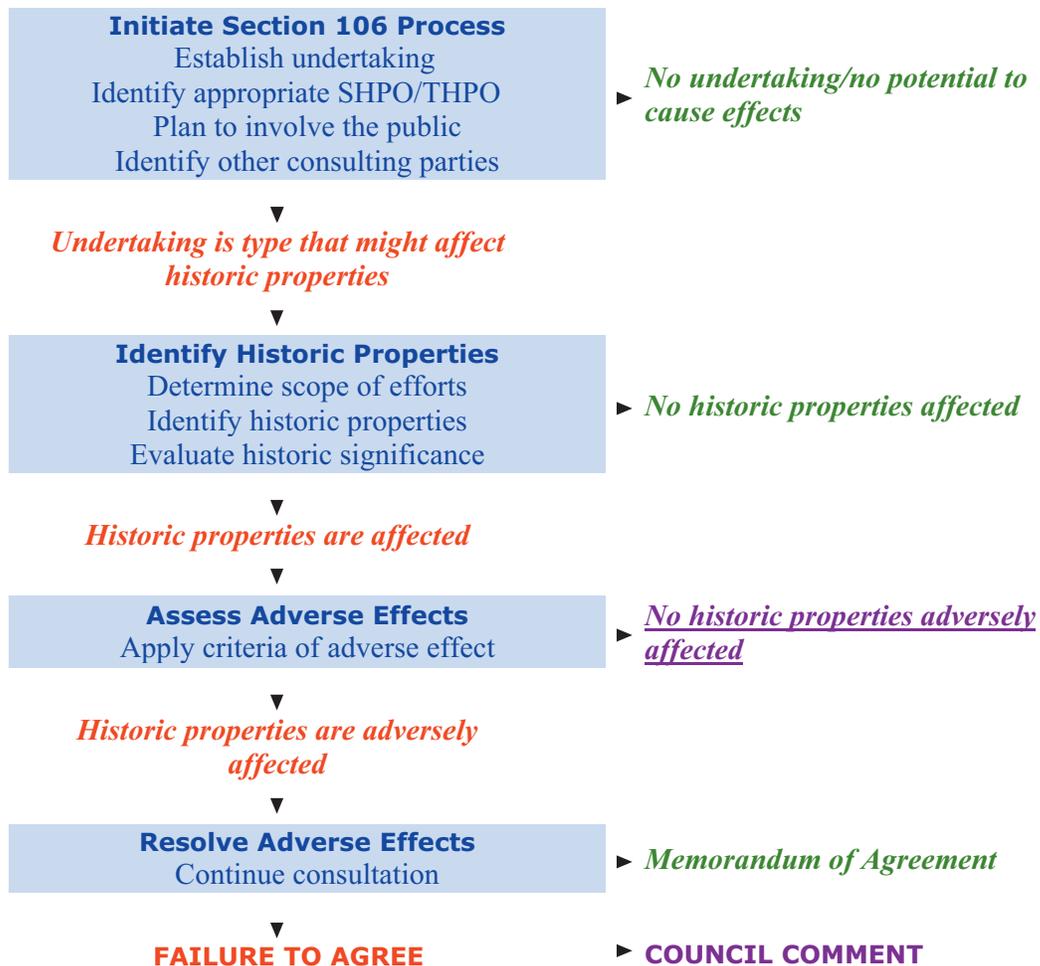
## **2.5 IMPLEMENTING SECTION 106 - THE FOUR STEPS**

The [Section 106 process](#) is briefly described in the following sections. For federally funded or assisted undertakings, the FHWA is ultimately responsible for completing the process and for coordination and consultation with the SHPO, the THPO or other appropriate tribal representative, if applicable, and the ACHP. As noted above, other consulting parties include representatives of local governments and the public. FDOT's responsibility is to provide FHWA with the appropriate documentation and assistance at each step in the Section 106 process. For state-funded projects,

the Department takes the responsibility for complying with the provisions of state historic preservation law with no FHWA involvement.

The revised regulations ([36 CFR Part 800](#)), effective January 11, 2001, strengthen certain requirements of the [Section 106 process](#) and also attempt to “streamline” portions of the review. Consultation between the federal agency and other parties with an interest in the effects of an undertaking is stressed. Increased consultation with federally recognized Native American Tribes is emphasized especially in cases where the action occurs on tribal lands or involves resources of cultural or religious significance to a tribe on or off tribal lands. The revised regulations recommend commencing the review process at the early stages of project planning. The review process, which implements Section 106, is divided into four steps and is illustrated in the flow chart below:

- Step 1: Initiate the Section 106 Process
- Step 2: Identify Historic Properties
- Step 3: Assess Adverse Effects
- Step 4: Resolve Adverse Effects



### 2.5.1 Step 1: Initiate the Section 106 Process

The FHWA first determines whether the proposed action is an “undertaking” as defined in the Section 106 regulations and, if so, whether it is the type of activity that has the potential to cause effects on historic properties. As noted in Chapter 1 of this Handbook, historic properties are **significant cultural resources**, that is, those that meet the criteria for inclusion in the *NRHP*. An “undertaking” is defined in [36 CFR Part 800.16\(y\)](#) as follows:

“a project, activity, or program funded in whole or part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; those requiring a federal permit, license or approval; and those subject to state or local regulations administered pursuant to a delegation or approval by a federal agency.”

If the undertaking is concluded to be a type of activity that does not have the potential to affect historic properties, if they were indeed present, then the agency has no further obligations under Section 106. This decision is unilaterally made by FHWA but the ACHP may issue an advisory opinion on the validity of this decision.

If the undertaking is determined to have the potential to affect historic properties, assuming that such resources were present, the FHWA must identify the appropriate SHPO and/or THPO (see 2.4) to consult in the [Section 106 process](#).

FHWA then consults with the SHPO/THPO to identify other potential consulting parties ([36 CFR Part 800.3](#)) concerning the proposed action and is responsible for inviting them to participate. This consultation process with the SHPO/THPO also includes developing a plan to involve the public in the Section 106 process by identifying the appropriate points to seek public input and for notifying the public of proposed actions. Where practicable, existing agency public involvement procedures can be used in this process if they are adequate in assuring compliance with Section 106 requirements. So too, is coordinating the Section 106 review with reviews required under other authorities such as NEPA. The public outreach effort should reflect the nature and complexity of the undertaking, the potential effects involved, and the projected public interest in the project. Confidentiality should also be considered in cases where resources may be threatened by public disclosure. This is especially the case where resources considered of religious or cultural significance to Native American tribes are involved.

FHWA should consult with the SHPO/THPO in a manner appropriate for the agency planning process for the undertaking and to the nature of the undertaking and its effects on historic properties ([36 CFR Part 800.3\[c\]\[3\]](#)). In other words, it is important that FHWA involve other participating parties in the Section 106 process in the project planning process and that the required consultation should be commensurate with the characteristics of the undertaking and its projected potential to affect historic properties. Policies and procedures pertinent to these issues can be found in the [FDOT Project Development and Environment Manual \(PD&E\), Part 2, Chapter 12](#), entitled “Archaeological And Historical Resources” and [Part 1, Chapter 3, entitled, “Class of Action Determinations.”](#)

Once the determination has been made that the undertaking has the potential to affect historic properties, if present, and the consultation process has been initiated, the second step in the Section 106 process is implemented (see flow chart on page 2-7).

## **2.5.2 Step 2: Identify Historic Properties**

This step in the [Section 106 process](#) occurs when a determination has been made that the undertaking may have the potential to affect historic properties, that is, significant archaeological and/or historical cultural resources. It involves FHWA and its agent, the FDOT, in determining the scope of the resource identification effort, conducting a cultural resource assessment survey tailored to the magnitude of the project and its potential for effects on historic properties, and in evaluating the significance of any cultural resources identified in the assessment process. If it is determined that the proposed project could affect historic properties, FHWA, in consultation with the SHPO and/or THPO, determine and document the Area of Potential Effect (APE) for the undertaking. The APE is the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties ([36 CFR Part 800.16\[d\]](#)), that is, affect the qualities for which the resource has been determined significant according to the [National Register](#) criteria. Once again, the nature and magnitude of the undertaking and its concomitant potential to cause effects is a critical element in the determination of the APE.

The scoping process of the resource identification effort involves, as applicable, a review of existing historic properties within the APE including any data concerning possible historic properties not yet identified. Information is sought from consulting parties identified in Step 1 and, as appropriate, from any other individuals or organizations that are likely to have knowledge concerning cultural resources in the area. The gathering of such information includes consultation as noted above, background research involving prior studies, oral history interviews where appropriate, and sample field investigation where necessary. At this stage, it is also important to gather information from appropriate federally recognized Native American tribes concerning archaeological resources that may be of religious or cultural significance to them on or off tribal lands. When appropriate, confidentiality issues should be considered ([36 CFR Part 800.11\[c\]](#)) to protect any historic properties that may be identified.

Based on the background information gathered, and in consultation with participating parties, a cultural resource assessment survey (CRAS) is conducted appropriate to the nature of the undertaking and its potential effects. [Part 2, Chapter 12 of the FDOT Project Development and Environment Manual](#) discusses level of survey in regard to various undertakings. The cultural resource assessment survey process and its proper documentation are discussed in detail in Chapters 3 and 5 of this Handbook. Where project alternatives consist of corridors or involve large land areas, or where access to property is restricted, FHWA may use a phased process to conduct identification and evaluation efforts. If cultural resources, archaeological or historical are identified within the APE as a result of the CRAS, they are evaluated for significance according to *National Register* criteria. The evaluation process for cultural resources is discussed in detail in Chapter 4 of this Handbook. If FHWA and the consulting parties agree on the potential significance of a resource or resources encountered, then the evaluation process is complete. If the participating parties do not agree, then the Keeper of the [National Register](#) may be requested to make a determination of

*National Register* eligibility for the resource (see [36 CFR Part 63](#)). A participant in the Section 106 process may also request that the ACHP become involved in this determination effort.

Two possible findings are possible as a result of Step 2 in the Section 106 process. If the FHWA finds that there are no historic properties present or that there are historic properties present but that the undertaking will have no effect on them, a finding of “No Historic Properties Affected” is issued (see flow chart on page 2-7). This finding is fully documented to the SHPO/THPO according to documentation requirements listed in [36 CFR Part 800.11\(d\)](#). All consulting parties are notified and documentation is made available for public inspection prior to approving the undertaking. If the SHPO/THPO or ACHP, if it has entered the process, does not object to the finding within 30 days of the receipt of the finding, the FHWA’s obligations under Section 106 are fulfilled.

If the FHWA determines that there are historic properties that may be affected by the undertaking then a “Historic Properties Affected” finding results and Step 3 of the Section 106 process is initiated (see flow chart on page 2-7). This is also the case if the SHPO/THPO or ACHP, if involved, object to the finding of “No Historic Properties Affected.” In this instance, the FHWA shall notify all consulting parties and invite their views on the effects and proceed to assess adverse effects in Step 3 of the Section 106 process.

### **2.5.3 Step 3: Assess Adverse Effects**

If historic properties are determined to be potentially affected in the APE, FHWA applies the Criteria of Adverse Effect to these resources. In doing so, FHWA considers any views concerning such effects that have been provided by consulting parties and the public. An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a resource that qualify the property for inclusion in the *National Register of Historic Places*. Adverse effects are those that would diminish the integrity of the properties location, design, setting, materials, workmanship, feeling or association. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be further removed in distance, or be cumulative ([36 CFR Part 800.5\[a\]](#)). Adverse effects can range from physical destruction or damage to all or part of the property by the undertaking to the improper provision of handicapped access that is not consistent with *The Secretary of the Interior’s Standards for the Treatment of Historic Properties* ([36 CFR Part 68](#)) and applicable guidelines. The Criteria of Adverse Effect are fully described and discussed in Chapter 6 of this Handbook.

It is important to note that former “exceptions” to the Criteria of Adverse Effect determination have been eliminated in the new Section 106 process (revised, 1/11/01). These include alterations to a historic property not in accordance with the Secretary’s Standards (noted above) and the transfer, sale, or lease of a historic property out of federal ownership or control without proper legal restrictions or covenants assuring its protection. The exception for data recovery regarding archaeological sites, that is, excavation for the scientific knowledge the site contained, has also been eliminated. Such action is now considered an adverse effect.

FHWA considers the views of the SHPO/THPO and other consulting parties and the public

in applying the Criteria of Adverse Effect. FHWA may propose a finding of “No Adverse Effect” (NAE) when the undertaking’s effects do not meet those established in the Criteria. FHWA documents the finding of NAE and provides it to all consulting parties. The SHPO/THPO has 30 days from the receipt of adequate documentation to review the finding. If there is no disagreement with this finding, FHWA may proceed with the undertaking. If the SHPO/THPO does not respond within 30 days of the receipt of the finding FHWA may consider this as agreement of the SHPO/THPO with the finding. FHWA must maintain a record of the finding (36 CFR Part 800.5[d][1]) and provide information to the public upon request while respecting confidentiality considerations, if applicable. If the undertaking changes prior to its implementation, FHWA must reopen the consultation process concerning the project.

If the SHPO/THPO or any consulting parties disagree with FHWA’s NAE finding in the 30-day review period, FHWA will either consult with the objecting party to resolve the disagreement or request the ACHP to review the finding. FHWA provides all pertinent documentation to the ACHP. The ACHP will notify FHWA of its determination as to whether the adverse effect criteria have been correctly applied within 15 days of having received the documented finding. The ACHP will specify the basis for its final determination and this determination will be binding. FHWA will proceed according to this determination. If the ACHP does not respond to the FHWA in the allotted 15 day time frame following receipt of documentation from FHWA, the agency may assume ACHP concurrence with its NAE finding and proceed accordingly.

If it is determined by FHWA and the consulting parties that an “Adverse Effect” to a historic property or properties has occurred as a result of the undertaking, then consultation continues under Step 4 of the Section 106 process (see flow chart on page 2-7) to resolve the adverse effect(s).

#### **2.5.4 Step 4: Resolve Adverse Effects**

In this step, FHWA continues the consultation process established in Step 3 in an attempt to resolve the undertaking’s adverse effect on a historic property. As previously noted, an adverse effect is one that results in the alteration of any of the characteristics of a significant cultural resource that qualifies the property for inclusion in the [\*National Register\*](#). FHWA consults with the SHPO/THPO and other consulting parties to develop and evaluate alternatives or modifications to the undertaking that could **avoid, minimize, or mitigate** the adverse effect to the property. FHWA also notifies the ACHP of the adverse effect finding and provides appropriate documentation to the Council. This documentation includes a description of the undertaking and APE, information about the identification process and affected historic properties, a discussion of project effects and why the adverse effect finding is applicable, and the views of the consulting parties on the process. The ACHP will advise the agency and the consulting parties within 15 days of receipt of the finding and the documentation as to whether it will participate in the consultation. The ACHP may also enter the process for other reasons such as a request from an involved party or if a National Historic Landmark is involved in the undertaking. If the ACHP decides not to participate, FHWA continues to proceed with the consultation process.

At this point, FHWA, the SHPO/THPO, and the ACHP (if participating), may agree to

invite other individuals or organizations to become consulting parties. This will certainly be the case for any individual or organization that will assume a specific role or responsibility in the development and implementation of an MOA concerning resolution of the adverse effect. FHWA provides all appropriate documentation to consulting parties subject to the confidentiality provisions of 36 CFR Part 800.11(c). FHWA also makes similar information available to the public and provides the public with an opportunity to express their views on resolving the adverse effects of the undertaking.

If the ACHP is not participating, FHWA consults with the SHPO/THPO and the other consulting parties to devise ways to avoid, minimize, or mitigate the adverse effects. First consideration is given to alternative ways of accomplishing the agency's goals without unacceptably damaging the *National Register* listed or eligible property. This may include consideration of alternative sites, alternative alignments, and alternative designs as well as the "no build" option, which can be used to evaluate the importance of the undertaking against the severity of its effects. If the consulting parties find that the consideration of such alternatives does not result in a viable solution that best serves the public interest, they can proceed to a discussion of mitigation measures. Mitigation refers to actions that reduce or compensate for the impacts an undertaking may have on a *National Register* listed or eligible property. This process and options are described and discussed in detail in Chapters 6, 7, and 8 of this Handbook.

If the consulting parties agree on how to resolve the adverse effects, a MOA will be executed. These parties will typically become signatories to the MOA along with others who may be invited to sign. The MOA is the document that records the terms and conditions agreed upon to resolve the adverse effects of an undertaking on historic properties. The executed MOA with appropriate documentation will be submitted to the ACHP prior to proceeding with the undertaking. If the consulting parties fail to agree on the terms of the MOA, FHWA will request the ACHP to join the consultation process. The Council will either join the process or proceed to comment on the process to the agency in which case the agency head must take the comments into account before reaching a final decision on the undertaking. It should also be remembered that the ACHP had the right to join the process when originally contacted by FHWA concerning the adverse effect and participated as a consulting party throughout the process.

In some cases, it may be agreed that there are no mitigation measures available and that the adverse effects must be accepted in the public interest. On the other hand, consulting parties may occasionally not be able to come to mutual agreement concerning the undertaking and its effects. In this case, FHWA, the SHPO and/or THPO, or the ACHP (if participating) may decide to terminate consultation. If this occurs, FHWA requests the ACHP's comments in accordance with 36 CFR Part 800.7(c). The head of the federal agency shall then take into account the Council's comments before reaching a final decision on the undertaking. The agency head will document the final decision on the undertaking that includes the rationale for the final decision and demonstrates that the Council's comments have been duly considered. This documentation will be provided to the ACHP, all consulting parties, and to the public for notification purposes. FHWA will either proceed or not proceed with the undertaking at this point. Either way, this concludes the Section 106 process and satisfies the FHWA's statutory responsibilities under Section 106 of the NHPA of 1966 (as amended).

## 2.6 FEATURED HYPERLINKS

36 CFR Part 63 - Determinations of eligibility for inclusion in the National Register of Historic Places

[http://www.access.gpo.gov/nara/cfr/waisidx\\_01/36cfr63\\_01.html](http://www.access.gpo.gov/nara/cfr/waisidx_01/36cfr63_01.html)

36 CFR Part 68 – The Secretary of the Interior’s Standards for the Treatment of Historic Properties

[http://www.access.gpo.gov/nara/cfr/waisidx\\_01/36cfr68\\_01.html](http://www.access.gpo.gov/nara/cfr/waisidx_01/36cfr68_01.html)

36 CFR Part 800 – Protection of Historic Properties

<http://www.achp.gov/regs.html>

36 Part 800.2 - Participants in the Section 106 process

<http://www.achp.gov/regs.html#800.2>

36 CFR Part 800.3 - Initiation of the Section 106 process

<http://www.achp.gov/regs.html#800.3>

36 CFR Part 800.5 - Assessment of adverse effects

<http://www.achp.gov/regs.html#800.5>

36 CFR Part 800.7 - Failure to resolve adverse effects

<http://www.achp.gov/regs.html#800.7>

36 CFR Part 800.11 - Documentation standards

<http://www.achp.gov/regs.html#800.11>

36 CFR Part 800.16 - Definitions

<http://www.achp.gov/regs.html#800.16>

48 FR 44716 – Professional Qualification Standards - 1983

<http://www2.cr.nps.gov/laws/ProfQual83.htm>

Advisory Council on Historic Preservation (ACHP)

<http://www.achp.gov/>

Chapter 267, F.S.: Historical Resources

<http://www.leg.state.fl.us/Statutes/index.cfm?Tab=Statutes&Submenu=1>

Division of Historical Resources (DHR)

<http://dhr.dos.state.fl.us>

FDOT PD&E Manual

<http://www.dot.state.fl.us/emo/pubs/pdeman/pdeman.htm>

Federal Highway Administration (FHWA)

<http://www.fhwa.dot.gov/>

National Environmental Policy Act (NEPA)

<http://ceq.eh.doe.gov/nepa/regs/nepa/nepaeqia.htm>

National Historic Preservation Act of 1966

<http://www2.cr.nps.gov/laws/NHPA1966.htm>

National Register of Historic Places (NRHP)

<http://www.cr.nps.gov/nr/index.htm>

**EXHIBIT 2.1**  
**NATIVE AMERICAN**  
**CONSULTATION EFFORTS**

## NATIVE AMERICAN CONSULTATION EFFORTS

Federal regulations (36 CFR part 800), effective January 11, 2001, require that federal agencies consult with federally recognized Native American tribes in all phases of the Section 106 process when an agency undertaking may have the potential to affect Native American historic properties on or off tribal lands. The Department acts as the agent of the FHWA in many aspects of the consultation process but the FHWA is ultimately responsible for compliance with the requirements of the regulations implementing Section 106 of the NHPA. The objective of Native American consultation is to conduct good faith efforts to elicit information from the appropriate tribes concerning properties of traditional or historical importance to them.

Under Section 106 of the NHPA, FDOT acts as the agent of FHWA in enacting transportation programs for the state. As noted above, the ultimate decisionmaking authority rests with FHWA. It is, therefore, the responsibility of the FHWA to make a reasonable and good faith effort to identify the appropriate tribes to be consulted.

*The Section 106 regulations define consultation as the “process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the section 106 process” (36 CFR Part 800 Section 800.16(f)).*

As defined in the NHPA and the implementing regulations, Indian tribes are those tribes that have received formal recognition by the United States. Specifically, “*Indian tribe* means an Indian tribe, band, nation, or other organized group or community...., which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians” (36CFR Part 800 Section 800.16 (m)).

In Florida, consultation takes place with the following five federally recognized tribes:

- The Miccosukee Tribe of Indians of Florida
- The Muscogee Creek Nation
- The Poarch Band of Creek Indians
- The Seminole Nation of Oklahoma, and
- The Seminole Tribe of Florida

All five tribes are part of the former Creek Confederacy with ancestral lands throughout the southeastern United States. Two tribes currently reside and have tribal lands in the state: the Miccosukee Tribe of Indians of Florida and the Seminole Tribe of Florida. Although the Muscogee Creek Nation, the Poarch Band of Creek Indians and the Seminole Nation of Oklahoma do not currently have reservation lands in the state, they at one time lived in Florida and

have a direct historical and cultural association with the state. They, therefore, are tribes that are culturally affiliated with the state of Florida.

### **Miccosukee Tribe of Indians of Florida**

The Miccosukee Tribe of Indians of Florida was originally part of the same group of Creek Indians as the Seminole Tribe who fought against the U.S. government during the Seminole Wars of the 1800s. They took refuge in the Everglades during these wars and were part of the small group that was not removed to Oklahoma following the war. Eventually, they split from the Seminole Tribe to become an independent tribe and, in 1962, were formally recognized by the U.S. government. Today, they have a population of approximately 550 individuals and three reservation areas in the state of Florida: Tamiami Trail, Alligator Alley and Krome Avenue. The Tamiami Trail Reservation area, located 40 miles west of Miami, is the site of most tribal operations, and the center of the Miccosukee Indian population. Alligator Alley is the largest of the Tribe's reservations, comprising 74,812.37 acres. It is located west of Ft. Lauderdale, Florida, lying north and south of State Highway 84 (Alligator Alley), and includes a service station plaza, a Miccosukee Police Substation, wetlands, and land used for cattle grazing. The Krome Avenue reservation consists of the Miccosukee Gaming Facility and Convention Center and the Miccosukee Tobacco Shop, located at the intersection of Krome Avenue and Tamiami Trail. For additional information consult the Miccosukee website (<http://www.miccosukee.com>).

### **Muscogee Creek Nation**

The Muscogee (Creek) people are descendents of a culture that, before AD 1500, spanned the entire region known today as the Southeastern United States. Early ancestors of the Muscogee constructed earthen pyramids along the rivers of this region as part of their elaborate ceremonial complexes. The historic Muscogee later built expansive towns within these same broad river valleys in the present states of Alabama, Georgia, Florida and South Carolina. In the removal treaty of 1832, Muscogee leadership exchanged the last of their ancestral homelands for new lands in Indian Territory (Oklahoma). The U.S. Army enforced the removal of more than 20,000 Muscogee (Creeks) to Indian Territory in 1836 and 1837. Today, the Muscogee Creek Nation is located in Oklahoma and has land claims in the Florida panhandle. The tribal headquarters is located in Okmulgee, Oklahoma, and the tribe has approximately 44,000 tribal members. It, along with the Seminole Nation, is considered one of the "five civilized tribes," a name bestowed by the U.S government because of the belief that these tribes adapted more quickly than others to European ways. Additional information on the Muscogee Creek Nation can be found at <http://www.ocevnet.org/creek>.

### **Poarch Band of Creek Indians**

The Poarch Band of Creek Indians was historically part of the Creek Confederacy with territory primarily in Georgia and Alabama. The Poarch represent one of the few groups that was not removed to Indian Territory by the United States government, and have lived together for nearly 150 years. They have a 400-acre reservation in southern Alabama on the Florida border,

but tribal members also live off-reservation in Escambia County, Florida. Federal recognition was obtained in 1984 and, currently, there are approximately 2,127 members of the Poarch Band of Creek Indians. Additional information on the Poarch Band of Creek Indians can be found at <http://www.poarchcreekindians.org>.

### **Seminole Nation of Oklahoma**

In 1856, the U.S government established the Seminole Nation of Oklahoma in Indian Territory. They are historically associated with the Seminole Tribe of Florida and represent the more than 3,000 Seminoles who were removed from Florida by the U.S government at the end of the Seminole Wars in the 1800s. Consequently, the Seminole Nation considers Florida its ancestral home and has historical and cultural connections to the state. The tribal headquarters are located at Wewoka (meaning Barking Waters), which is the county seat of Seminole County. The Seminole Nation of Oklahoma currently has around 12,000 enrolled tribal members, of which about 60 percent live within or near the Seminole Nation boundaries. Except for about 700 not living in Oklahoma, the remaining 40 percent of tribal members live in other parts of the state. Additional information about the Seminole Nation of Oklahoma can be found on its website at <http://www.cowboy.net/native/seminole>.

### **Seminole Tribe of Florida**

The Seminoles are composed of various culturally related Creek tribes that began to migrate into northern Florida sometime before 1750. In all likelihood, those Indians who survived the period of European settlement and the resultant diseases were absorbed into the Seminole Tribe as they migrated south into Florida. During and following the Seminole Wars, approximately 300 Seminoles took refuge in the Everglades and avoided removal to Indian Territory. Their descendants form the Seminole Tribe of Florida. In 1957, a majority of these people voted to establish an administrative entity called the Seminole Tribe of Florida and, in that same year, the U.S. Congress officially recognized them as an Indian tribe. Those who chose to not become members of the newly-formed Seminole Tribe either remained independent or eventually joined together to form the Miccosukee Tribe of Indians of Florida. Today, the Seminole Tribe of Florida has almost 3,000 members living on six reservations across the peninsula: Hollywood (formerly Dania), Big Cypress, Brighton, Fort Pierce, Immokalee, and Tampa. Additional information on the Seminole Tribe of Florida can be found at <http://www.seminoletribe.com>

### **Consultation Meetings: An Ongoing Dialogue**

Native American consultation can be challenging and complicated given the history of Indian and government relations in the United States and widely varying and disparate cultural perspectives. The FHWA and the Department have worked diligently with the tribes to establish the trust relationships and mutual understanding essential to successful coordination efforts. FHWA, SHPO, and the Department are currently involved in ongoing consultation meetings with representatives of the Native American tribes living in or having cultural affiliation with Florida. This dialogue has its foundation in Section 106 discussion meetings and project related coordination begun in 1999. The objectives of the current meetings are to build partnerships and to identify

transportation-related issues of concern to both the agencies and tribes. These issues include:

- Establishing effective communication channels;
- Establishing appropriate communication protocols;
- Enhancing mutual respect and understanding;
- Encouraging growth of cultural sensitivity;
- Understanding roles and responsibilities under pertinent laws and regulations;
- Respecting tribal sovereignty;
- Understanding agency concerns for production schedules and costs;
- Understanding tribal concerns for Native American sacred and cultural resources; and
- Streamlining the consultation process.

The ultimate goal of this Native American consultation effort is to complete a Memorandum of Understanding between the agencies and tribes that will ensure compliance with Section 106 of the NHPA and expedite the consultation process

### **Major Issues**

Coordination with the five federally recognized tribes represents a developing and evolving process that, to date, has identified the following four major issues of concern to the tribes:

1. Government-to-government relationship
2. Confidentiality
3. Human Remains
4. Archaeological Sites

### **Government-to-Government Relationship**

Consultation with a Native American tribe must recognize the “government-to-government” relationship that exists between the federal government and federally recognized Native American tribes and should be conducted in a sensitive manner that is respectful of tribal sovereignty. Indian tribes are sovereign governments that exist within the boundaries of the United States. As such, the U.S government has a unique relationship with the tribes that derives from the Constitution, treaties, Supreme Court decisions, and federal laws and authorities. Therefore, all initial coordination efforts must take place on a government-to-government level.

Technically, this means that the head of FHWA coordinates directly with each tribal Chief or Chairperson. In recognition that this may not be workable on a day-to-day basis, the FHWA, in conjunction with the FDOT, initiated the government-to-government relationship with each of the five tribes and is in the process of developing a workable protocol that will satisfy tribal and agency objectives. While the proper protocol is being established, Native American tribes should be kept informed of each step of the Section 106 process.

*Until the official protocol and procedures for conducting consultation are completed, the District Cultural Resource Managers should contact the FDOT Native American Coordinator with questions regarding the information to be provided to the tribes.*

## **Confidentiality**

Native American people are often “held to norms of secrecy and confidentiality” when dealing with sacred information, and the mere act of revelation to an outsider can constitute a violation of traditional religious and cultural norms. Because of this, Indian tribes are often concerned about revealing the locations of their religious and cultural sites. Providing such information on traditional use areas, such as plant gathering places, ceremonial centers, and burial mounds, to the public may also lead to the disruption of its use or even destruction by curious or ill-intentioned people. Section 204 of the NHPA allows agencies to withhold information regarding an undertaking or its effects if it determines that such information would:

- Cause a significant invasion of privacy;
- Risk harm to the resource; or
- Impede the use of a traditional religious site by its practitioners.

Additionally, legislation enacted by the Florida state legislature in January 2002 exempts the locations of archaeological sites in Florida from the provisions of what is commonly referred to as the “Sunshine Law,” (s.119.07 (1) and 2.24(a) of Article I of the State Constitution). The law allows agencies to limit the distribution of location information on sites vulnerable to looting or vandalism, in particular, prehistoric archaeological sites.

Again, FHWA and FDOT are currently working with the tribes to identify those cases where confidentiality is desired or required. In the meantime, the District Cultural Resource Managers should consult with the FDOT Native American Coordinator to determine the need for withholding such information.

## **Human Remains**

Human remains are a matter of cultural, historical, and sacred significance to Indian tribes and should not be looked at only in an archaeological context. For archaeologists, the significance of human remains sites lies in their ability to provide biological, pathological, epidemiological, dietary, and mortuary information that will assist in better describing, understanding, and explaining past human behavior and historical processes. Many Native Americans, on the other hand, view such interests as incompatible with their traditional beliefs and values. So strong are their beliefs regarding the sacredness of these types of sites that some tribes refuse to even discuss the subject of death. Not surprisingly, the excavation of human remains for the purposes of scientific investigation is viewed as abhorrent to them and tantamount to an unauthorized

exhumation of their ancestors. The discovery of human remains must, therefore, be approached with a great deal of cultural sensitivity and an understanding that, to Native Americans, human remains are sacred.

In the event that human remains are found during any project, the provisions of Chapter 872 (see Chapter 1 of this Handbook) must be followed. Briefly, this law states that when “an unmarked human burial is discovered..., all activity that may disturb the unmarked human burial shall cease” and may not resume until authorized by either the District Medical Examiner or the State Archaeologist [(872.05(4)]. If human remains less than 75 years old are encountered or if they are involved in a criminal investigation, the District Medical Examiner has jurisdiction. If the remains are determined to be more than 75 years of age, then the State Archaeologist takes the lead in determining appropriate treatments and options for the remains. In cases where the State Archaeologist has jurisdiction, the State Archaeologist will set up a committee to initiate consultation and make decisions regarding the steps to be taken to satisfy the legal requirements of Chapter 872, F.S. It is advisable to notify the FDOT Native American Coordinator immediately to ensure that the proper legal procedures are followed.

### **Archaeological Sites**

To non-Indians, the past, as reflected in archaeological sites, is not part of their cultural heritage, traditional religious system, or ancestral sites. By the very nature of their profession, archaeologists are trained to view archaeological sites as sources of information about the past to be excavated and analyzed, and a means to better understand the way of life of Native American groups.

To Native Americans, archaeological sites are part of their ongoing cultural traditions and are frequently referred to as ancestral or cultural sites. Consequently, these sites remain an integral part of their history and culture. In many cases, such sites may have more importance than the scientific value that can be yielded through excavation.

It is, therefore, imperative that Native American tribes be consulted regarding these sites. It is also recommended that the District Cultural Resource Managers consult with the Department’s Native American Coordinator for any project where significant archaeological sites are identified during the CRAS. The Native American Coordinator can help provide direction to assure that the tribes receive the proper information and are included in determining effects and providing input in ways to minimize, avoid or mitigate adverse effects.

**Native American Tribal Contacts (updated May 20, 2003)**

*Native American consultation regarding archaeological resources represents one of the most challenging Section 106 compliance issues. The need to establish a cooperative relationship between the Department, FHWA, and the five federally recognized tribes affiliated with Florida is critical to ensure compliance with the law and to meet project schedules. The Department is actively developing a workable consultation process that incorporates Native American concerns in all phases of the Section 106 review process. Therefore, please consult with the Department Native American Coordinator and the FHWA with questions regarding the consultation process.*

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***Poarch Band of Creek Indians***

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**CHAPTER 3**  
**THE ETDM PROCESS AND CULTURAL RESOURCES**

## CHAPTER 3 THE ETDM PROCESS AND CULTURAL RESOURCES

### 3.1 INTRODUCTION

FDOT, in partnership with FHWA and FTA, has developed and implemented a completely new method for planning and delivering transportation projects. This process, known as Efficient Transportation Decision Making ([ETDM](#)), was developed in response to the “Environmental Streamlining” legislation passed by Congress as part of the [Transportation Equity Act for the 21st Century](#) (Section 1309 of TEA-21). To date, 24 resource agencies, including the Florida Department of State, have signed a Memorandum of Understanding agreeing to participate in the ETDM process and to assign a representative to serve as a member of the ETDM Environmental Technical Advisory Team (ETAT). The Florida Department of State assigned two representatives of the Division of Historical Resources/State Historic Preservation Office to function in this capacity. The DHR/SHPO ETAT representatives will provide official responses to the FDOT that will be advisory and will include input regarding regulatory and planning programs.

The ETDM Process is designed to provide FDHR/SHPO, Tribal Historic Preservation Officers (THPO), other consulting parties and the public access to project plans and information about potential effects to Florida’s cultural resources. The overall intent of the ETDM Process is to integrate a balanced consideration of inputs to the sociocultural (human) environment, which includes archaeological sites and historic resources, within the decision-making process. The ETDM Process provides early and continuous FDHR/SHPO, THPO, and public participation and access to project and resource data upon which to base decisions. The process provides for effective communication so agencies and the affected public can discern how their input influences project concepts. ETDM will incorporate cultural resources by allowing for the identification of known archaeological sites and historic resources and evaluation of the likelihood of unrecorded resources within a project area during the early phases of the transportation planning process.

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*ETDM changes the FDOT transportation planning process. It does not replace the Section 106 process nor does it negate the need for cultural resource assessments or other types of technical studies. ETDM simply assists with the early identification of cultural resources requiring special consideration before major projects enter the FDOT work program. It also allows those projects with no cultural resource issues to proceed without further technical studies.*

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This chapter provides an overview of the ETDM process, explains how cultural resources are included, and provides guidance for conducting cultural resource evaluations under this new process. The specific procedures for implementing the ETDM process are found in the [ETDM Guidelines](#).

### 3.2 THE ETDM PROCESS

Florida's ETDM process redefines how the state accomplishes transportation planning and project development within its current statutes and regulations. This new process moves interaction with the SHPO, THPO, and other consulting parties into the early planning stages of transportation planning and allows them to provide comments on the potential impacts of a project to cultural resources throughout the planning, programming, and project development phases of a project.

Under this process, as shown in Figures 1 and 2, cultural resource analysis is included in both the Long Range Transportation Planning and the Transportation Improvement Program. Prior to ETDM, no substantial cultural resource analysis was conducted until after a specific project was programmed into the FDOT 5 year work program and the Project Development and Environment process was underway. The upfront inclusion of cultural resource analysis in ETDM will allow for decisions to be made regarding avoidance options and mitigation strategies for major projects early in the transportation planning process.

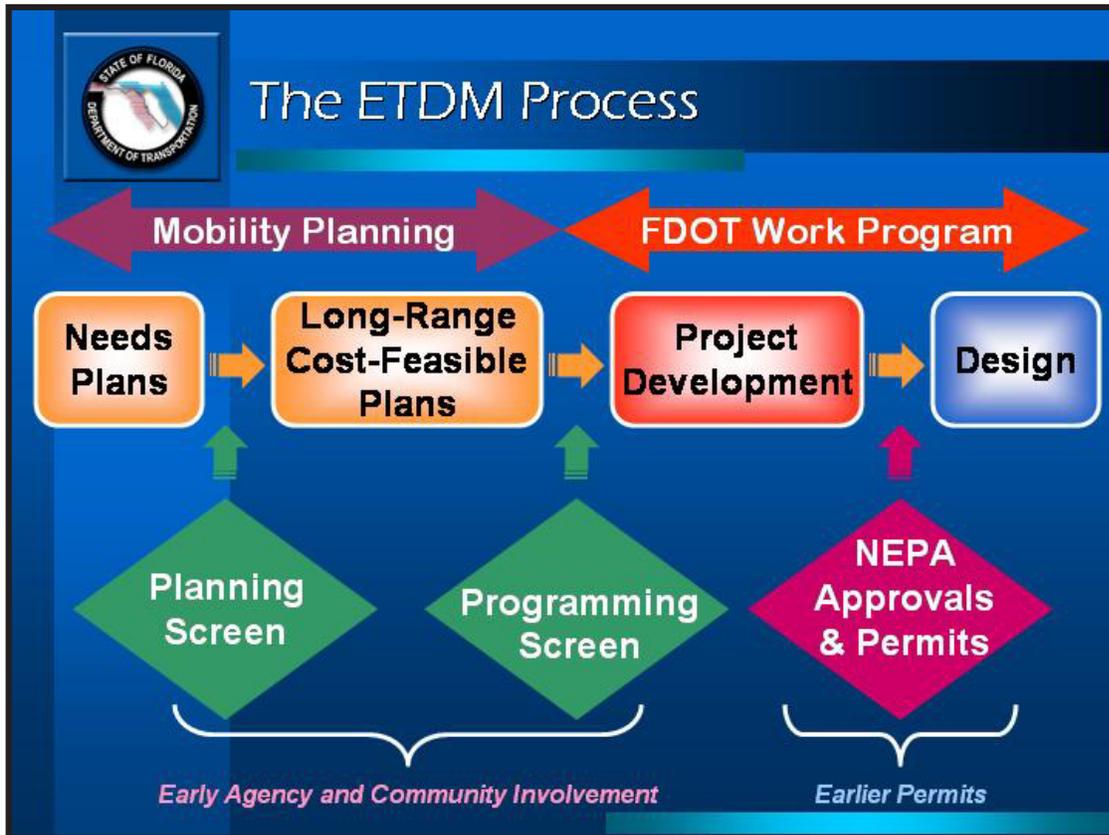


Figure 1: The ETDM Process

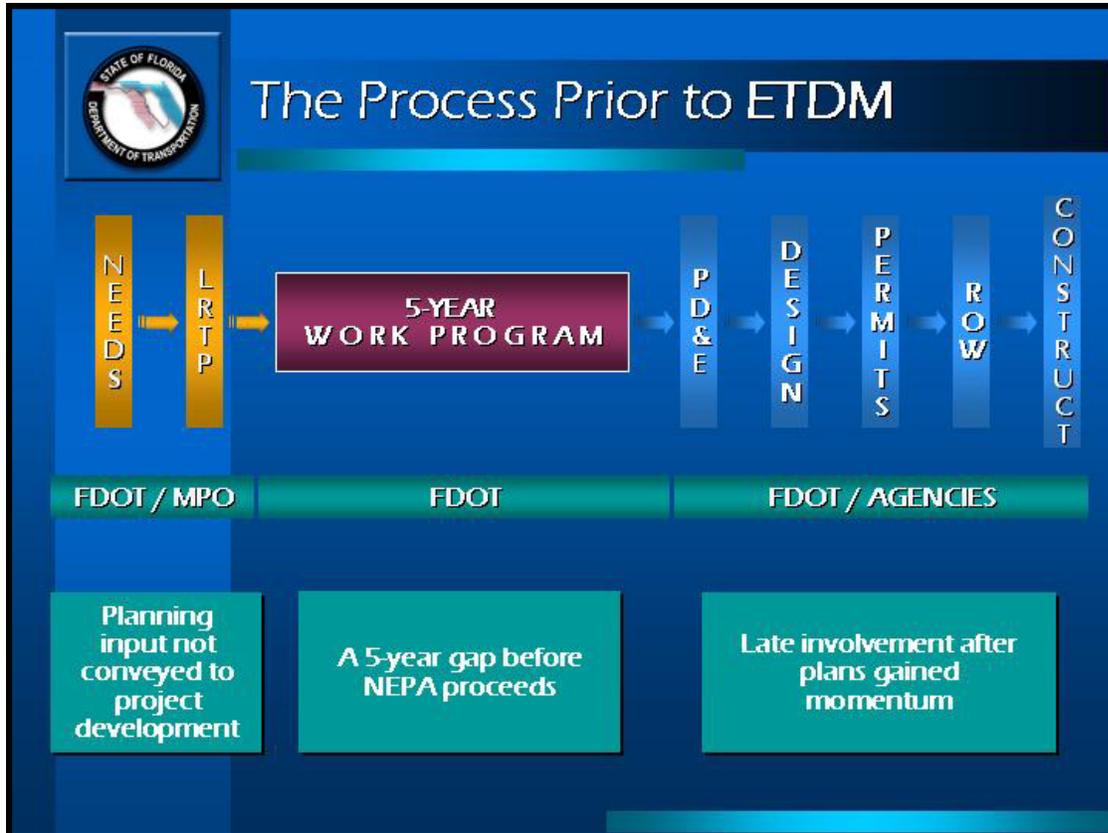


Figure 2: The Process Prior to ETDM

A key component of ETDM is the Environmental Screening Tool, an interactive database and mapping application available on the Internet. GIS analyses of previously recorded cultural resources are performed to locate previously recorded archaeological sites and historic resources located in the vicinity of the project area. This GIS analysis takes place during the Planning and Programming phase of a project during an event referred to as “screening.” These screening events, known as the Planning Screen and the Programming Screen in the ETDM Process, are conducted prior to project development.

### 3.2.1 Planning Screen

The Planning Screen allows the SHPO to review project Purpose and Need Statements and comment on the potential impact of projects to cultural resources early in the planning process. This opportunity enables planners to adjust project concepts to avoid or minimize adverse impacts, consider mitigation alternatives, and improve estimation of project costs. Secondary and cumulative impacts are evaluated on a project- and system-wide basis in connection with the Planning Screen. The interrelationships between historic preservation concerns and mobility plans are considered through integrated agency planning. Key recommendations and conclusions regarding potential project impacts are summarized in a Summary Report. This report guides planners to stage transportation priorities in long-range transportation plans and is available electronically to the SHPO, THPO, and other consulting parties as well as to other resource agencies and the public.

### 3.2.2 Programming Screen

This screen occurs before projects are funded in the FDOT Five-Year Work Program. It initiates the National Environmental Policy Act (NEPA) process for federally funded projects or the State Environmental Impact Process for state-funded projects. SHPO input about the potential impact to cultural resources is the basis for “agency scoping” efforts to help ensure compliance with NEPA and other applicable federal and state laws, such as Section 106, that are addressed during the NEPA process (“NEPA” is used throughout the Guidelines to collectively refer to all applicable environmental laws.). If significant issues are identified, the SHPO or THPO may request Dispute Resolution before the project is programmed in the FDOT Five-Year Work Program. FHWA/FTA and FDOT agree on a Class of Action Determination for each priority project. Community and SHPO input, preliminary project concepts, reasonable project alternatives, and agency scoping recommendations are summarized in a Programming Summary Report. This report is used as the transition document to the Project Development phase.

### 3.2.3. Project Development

The Project Development phase is the process by which the FDOT documents NEPA compliance and obtains required environmental permits. In the Project Development phase, each project is developed to the level of detail necessary to accurately assess the impacts to archaeological and historic resources in order to obtain environmental permits at the conclusion of the NEPA process. Early SHPO involvement, coupled with continual assessment of cultural resource effects and public involvement, is expected to improve the quality of decisions made during planning and reduce legal challenges during the NEPA and permitting processes. This interaction continues throughout the life of a project to ensure that mobility needs are balanced with historic preservation decisions, values, and mitigation strategies. In this new process, resource avoidance, minimization options and mitigation strategies are identified earlier, and cost impacts for these strategies can be considered in establishing transportation plan priorities. SHPO interaction during project development allows permitting to be concurrent with the completion of the federal NEPA process and reduces the duplication of effort that occurs in today’s production process.

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*The current PD&E Manual of the FDOT contains two volumes (Parts 1 and 2) which describe in detail the process by which transportation projects are developed. Part 1 of the PD&E Manual describes the process involved with environmental evaluation of projects. Many of the process steps described in Part 1 will be modified by application of the ETDM Process. The ETDM Interim Guidelines will eventually replace Part 1 of the FDOT’s PD&E Manual.*

*Part 2 of the PD&E Manual is largely focused on the procedures for compliance with state and federal law and with the National Environmental Policy Act (NEPA). Part 2 Chapter 12 focuses specifically on archaeological and historic resources. Part 2 of the PD&E Manual is not replaced by the ETDM Process.*

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### **3.3 TYPES OF PROJECTS IN ETDM**

The types of projects currently in ETDM include major capacity improvement projects, such as roadway and bridge widening (excluding the addition of auxiliary lanes), new roadways and bridges, and rail transit systems. In Metropolitan Planning Organization (MPO) areas, the Planning Screen will occur on capacity improvements contained in the Long Range Transportation Needs Plan and prior to the development of the MPO Long Range Transportation Plan with the exception of the Florida Intrastate Highway System (FIHS) facilities. FIHS facilities will be screened during the development of the FIHS Cost Feasible Plan, by FDOT, for both the MPO and non-MPO areas. These analyses at the Planning Screen phase allow for the early identification of cultural resource issues that could influence the priority, alignment, and/or design features of candidate transportation projects.

The intent of the Programming Screen is to identify significant environmental and social issues of priority transportation projects and to develop a methodology for focused technical studies to address those issues or resolve a dispute before priority projects are programmed into the FDOT Five-Year Work Program. The Programming Screen is applied to project priorities being considered by the MPO and FDOT for inclusion in the FDOT Five-Year Work Program. It includes priority bridge projects included in the Statewide Bridge Inspection Summary Report and the projects included on county priority lists. In the ETDM Process, most projects that enter the Programming Screen will have already been evaluated in the Planning Screen. The results of these project evaluations of potential impacts to the natural and social environment are stored in the Environmental Screening Tool. Candidate projects that have not been previously evaluated in the Planning Screen, such as bridge replacement projects, Long Range Transportation Plan project amendments, and county priorities in non-MPO areas, will be evaluated in the Programming Screen.

#### **3.3.1 Agency Operating Agreement**

Not all transportation projects are included in the ETDM process. Projects not in ETDM are covered under an Agency Operating Agreement (AOA) between FDOT, FHWA, the Advisory Council on Historic Preservation (ACHP), and the Florida State Historic Preservation Officer (SHPO). The AOA, which is included in Exhibit 3.1, establishes how the SHPO operates as an ETDM member. It also outlines the level of cultural resource analysis required for the various types of FDOT transportation projects to ensure compliance with Section 106, Chapter 267, F.S., and NEPA. Two basic considerations underlie the AOA: the potential a project has to impact cultural resources and the potential for cultural resources to be present in a given location. Both the project location and the specific type of activity determine the required level of cultural resource review.

### **3.4 THE ETDM TEAM**

The ETDM team is comprised of the following:

- FDOT ETDM Coordinator from each district who is responsible for overall coordination within the Department and with the MPOs, resource agencies and the community;

- MPO ETDM Coordinator from each district who is responsible for agency and community interaction in MPO areas through the Programming Screen Phase (except for bridges and FIHS);
- Community Liaison Coordinator from each district who is responsible for establishing a 2-way conduit of communication with the public; and
- An Environmental Technical Advisory Team (ETAT) that consists of federal and state agency and MPO representatives. From a cultural resource perspective, the Environmental Technical Advisory Team representatives from the FDHR/SHPO are critical. The FDHR/SHPO ETAT members are responsible for commenting and providing that agency's official opinion regarding the potential impacts of a proposed project on cultural resources.

### **3.4.1 The Environmental Technical Advisory Team**

The FDHR/SHPO has appointed representatives with responsibility to coordinate and perform all agency actions to satisfy the agency statutory responsibility with respect to the planning and implementation of transportation projects. Interaction with the FDHR/SHPO occurs throughout the life of a project to ensure that transportation decisions are balanced with cultural resource preservation decisions. The FDHR/SHPO ETAT representatives have agency authority and responsibility to coordinate internally and represent agency positions. The role of the ETAT representatives changes from advisory during the planning phase to coordination during the project development and environmental permitting phase. During planning, the ETAT representatives advise the MPO in urban areas (and the FDOT in non-MPO areas) of potential project impacts to known cultural resources and the likelihood of impacts to unrecorded properties, consistent with FDHR/SHPOs regulatory and planning program. Recommendations are provided regarding how to avoid, minimize, or mitigate these impacts. The ETAT representatives also evaluate and provide comments on secondary and cumulative impacts of a transportation improvement project for the resources that their agencies are responsible for protecting. The ETAT representatives concur with the purpose and need statement for the project, and provide updated resource data that may affect decisions based on agency plans and goals. The SHPO ETAT representatives provide an official opinion or concurrence only. Project records must show that the transportation planning agency provided the SHPO, THPO, and the ACHP the opportunity to comment on a project. Final decision making for establishing project priorities still lies with the transportation planning agency.

As a project advances into the project development and design phases, the SHPO ETAT representatives continue to provide project input and technical assistance to FDOT in order to satisfy federal or state historic preservation regulations, including permit requirements from other resource agencies, such as the US Army Corps of Engineers or the Florida Department of Environmental Protection. This includes requesting technical studies to aid in agency decisions and identifying, defining, and participating in technical studies needed for SHPO decisions. The SHPO ETAT representatives are responsible for coordinating within their agency to accomplish permitting concurrent with the completion of the federal NEPA or state SEIR process.

### 3.5 THE ENVIRONMENTAL SCREENING TOOL

The Environmental Screening Tool (EST) is a statewide Geographic Information System (GIS) application that supports the ETDM Process by providing Internet access to project planning information. This Internet-accessible GIS application brings together information about transportation projects and cultural resources. It enables the ETAT member and the community to examine potential impacts to cultural resources. A key component of the application is its use of the [Florida Geographic Data Library \(FGDL\)](#) housed at the GeoPlan Center at the University of Florida. The GeoPlan Center compiles geographic information system data from federal, state, and local agencies and makes it available to the public through the FGDL.

*GIS Information on cultural resources is obtained primarily through the [Florida Master Site File \(FMSF\)](#), the state's official repository for archaeological and historic resource data. The FMSF consist of a paper file and digital archive of known archaeological sites and historic resources in Florida. The FMSF provides regular digital file updates to FGDL regarding cultural resource data, archaeological sites, and historic resources recorded on Florida Master Site File Forms.*

Using the FGDL as the foundation for environmental resource data, the Environmental Screening Tool provides utilities to input and update information about transportation projects and cultural resources, perform standardized GIS analyses, gather and report comments by the ETAT representative, and provide read-only information to the public. Ease of use is a feature of this system that allows ETAT representatives access to the ETDM database and GIS analysis results without the cost of high-end computer facilities, costly software, and the specialized skills of a GIS analyst. Figure 3 schematically illustrates the concept for the ETDM database system that is accessed using the Environmental Screening Tool.

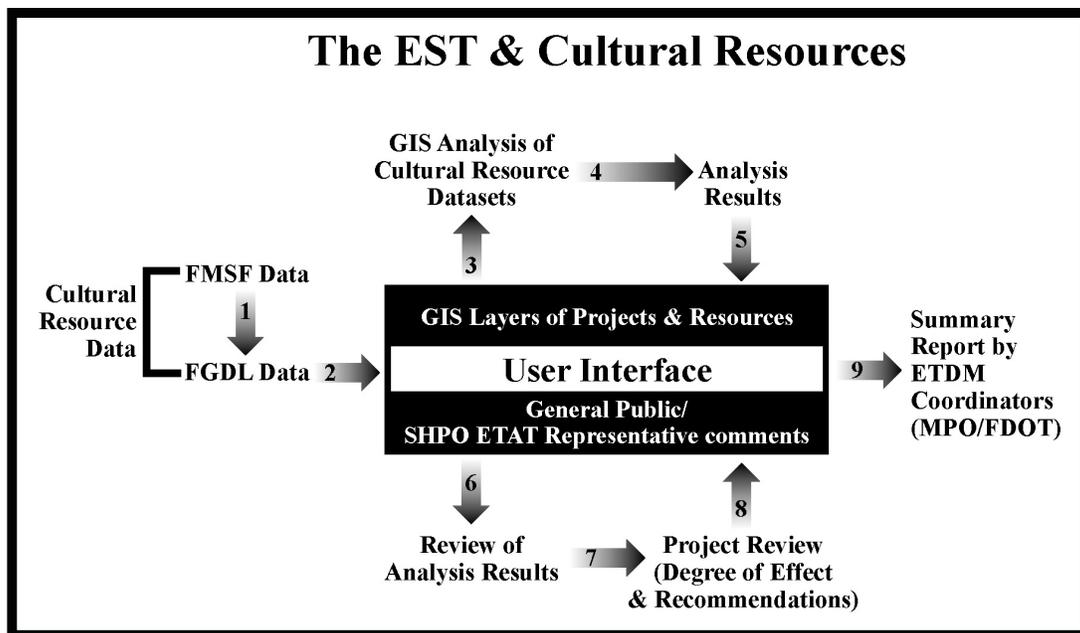


Figure 3: The ETDM Cultural Resources Database System

The EST provides results of GIS analyses and affords regulatory and resource agencies and the public the ability to evaluate the effects of transportation plans on Florida's resources, including its affected communities. The Environmental Screening Tool enables the affected parties to provide feedback on the degree of effect and recommendations or requirements for project modifications to avoid, minimize or mitigate adverse effects.

### 3.5.1 Cultural Resource Data in the EST

Cultural resource data in the EST includes datasets maintained by the Florida Master Site File at the Florida Division of Historical Resources (FDHR). These datasets are based on information provided on Florida Master Site File forms. Updated versions of these datasets are distributed to the FGDL on a quarterly basis for inclusion in the EST. The categories of data recorded on FSMF forms and included in the EST are briefly explained below and shown in Figure 4:

Archaeological Sites include the following categories of data:

- Precontact and historic period archaeological sites;
- Historic roads, ways and trails;
- Historic Earthworks such as ditches, earthen dams, dikes, canals, irrigation ditches;
- Cattle dipping troughs;
- Historic Landscapes such as historic city plazas, formal gardens and golf courses;
- Indian watercraft such as canoes or log boats; and
- Precontact period burials.

***NOTE: Precontact burials are currently documented in the FMSF on the Archaeological Site Form and are included in the Archaeological Dataset in the EST. FDOT recognizes the sensitive nature of these cultural sites and the need to create a separate and confidential dataset that will assist in their avoidance. This issue is being addressed by the ongoing Native American coordination effort.***

Historic Cemeteries include marked or unmarked graves that can consist of grave markers, grave depressions, fencing, and landscape elements.

Historic Structures include buildings, structures, and objects such as monuments and statues.

Historic Bridges include both pedestrian and vehicular bridges.

Resource Groups include historic districts, archaeological districts, multiple property listings, and building complexes.

National Register of Historic Places (NRHP) Listed Properties includes the list of properties officially listed in the NRHP.

SHPO Survey Areas includes those areas subjected to some level of cultural resource survey and submitted to FDHR.

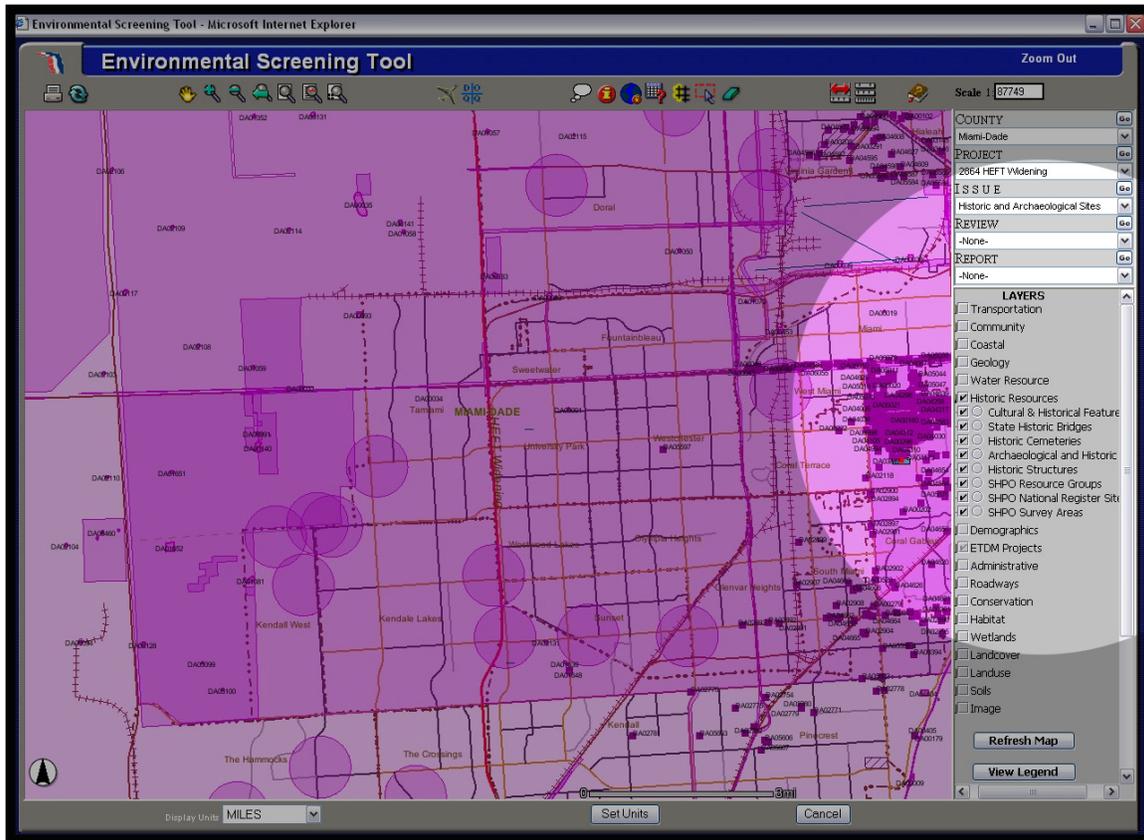


Figure 4: Categories of Cultural Resources Data as Shown in the EST

*The FMSF represents an important inventory of resources for which there is available information about their origin and which describes their physical appearance at a particular point in time. It is an important component of the EST because it assists in the identification of resources that may warrant further investigation and protection. Because the inventory of historic resources is not all-inclusive on a statewide basis, data gaps exist. Additionally, the locations of resources depend on the accuracy of the maps submitted to the FMSF office. There are also occasions, predominantly in the 1940s, when the original recorder deliberately concealed or reported inaccurate locations in order to protect sensitive archaeological sites. Therefore, caution should be exercised when interpreting locational data, particularly data associated with archaeological sites. When using the FMSF as a primary reference source, users should be aware of the sometimes uneven quality of the information and be prepared to verify accuracy through additional sources.*

### **3.6 DETERMINING THE NEED FOR A TECHNICAL STUDY AND THE REQUIRED LEVEL OF EFFORT**

The decision regarding the need for a technical study and the level of effort for cultural resource analysis will depend on the project type and activity. For the major capacity projects included in ETDM, this decision will take into account the comments of the SHPO ETAT representatives who will review the data in the EST to determine the potential involvement with cultural resources. These comments are noted in the Summary report. For those project types that are not included in ETDM, the FDOT, in consultation with FHWA and the Florida SHPO, has identified specific project types and agreed upon an appropriate level of cultural resource analysis. This decision making matrix is defined in the Agency Operating Agreement, included as Exhibit 3.1.

#### **3.6.1 Determining the Cultural Resources Level of Effort in ETDM**

FDOT developed a series of considerations or questions (see Exhibit 3.2) to be used by the ETAT members as guidance when conducting a review of a project. The goal is to provide a mental template to guide the reviewer through a series of considerations to 1) make decisions regarding the nature and status of known cultural resources in a project, 2) determine the need for a technical study, and 3) assign a degree of effect. These questions recognize the issues specific to cultural resources and incorporate federal and state guidelines, metropolitan planning factors, and standard analysis used by cultural resource managers. These questions are organized into five categories of information:

- Jurisdictional - Questions related to ownership and management of lands,
- Survey - Questions related to the existence and quality of previous Cultural Resources Surveys,
- Resource - Questions related to the existence and characteristics of a cultural resource,
- Probability - Questions related to the potential occurrence of a cultural resource in a given area, and
- Technical Study - Questions related to determining the need for additional technical studies.

#### **3.6.2 Assigning Degree of Effect**

*Note: the degree of effect in ETDM is not the same as a Section 106 effects determination. In ETDM, the degree of effect represents a judgment regarding the potential involvement a proposed project may have with cultural resources listed in the Florida Master Site File. At this time, the degree of effect does not include any statement regarding the potential to impact unrecorded resources. Such an assignment of effect will eventually be incorporated into ETDM once the datasets needed for such a decision are included in the EST.*

FDOT recognizes that additional guidance will be necessary for assigning a “degree of effect” for cultural resources in the Planning and Programming Summary Reports (see Figure 5). Non-compliance with federal and state historic preservation law, Comprehensive Plan consistency, and/or an existing Memorandum of Agreement (MOA) or commitment represent the only statutory requirements that would trigger a potential dispute. Table 1 provides additional guidance in assigning a degree of potential effect on cultural resources.

**ETAT Reviews: Direct Effects**

| Project      | From           | To                 | Locked | Issue   |
|--------------|----------------|--------------------|--------|---|
| STATE ROAD 7 | Clint Moore Rd | Boynton Beach Blvd | N      | Historic and Archaeological Sites <input type="checkbox"/> Confidential |

Alternative: 1. From Clint Moore Rd To Boynton Beach Blvd | Agency: FL Department of State

Agency Involvement:  Continue  No Further Action

Degree of Effect:  Enhanced  Substantial  Minimal to None  Potential Dispute  Moderate

Class of Action: No Determination

Comments:

**Identify resources and level of importance:**  
 Site PB10394, a frame vernacular structure is recorded approximately 600 ft. from the project corridor. Level of Importance is undeterminable as this resource has not been evaluated for eligibility for listing in the National Register of Historic Places.

**Comment on effects to resources:**  
 Unable to determine effects to PB10394. This should be evaluated and results provided in a Cultural Resources Assessment Survey by a qualified professional. Unable to determine potential effects to unrecorded sites.

**Additional comments (optional):**  
 The project area has been subject to extensive agricultural practices. Although surface deposits of unrecorded sites may be displaced from their original contexts and lack integrity, deeper deposits below the typical depth of agricultural activities (>30cm) may remain intact maintain integrity. The presence of these sites should be taken into account when developing a cultural resources assessment strategy.

**Commitments and Recommendations:**

User Name: Password: By entering your agency's password you are certifying that these comments represent the official review for your agency. [Cancel] [Submit]

Map Interface: Zoom In, Scale 1:67322, Layers: Transportation, Community, Coastal, Geology, Water Resource, Historic Resources, Demographics, ETCM Projects, Administrative, Roadways, Conservation, Habitat, Wetlands, Landcover, Landuse, Soils, Image. [Refresh Map] [View Legend]

Figure 5: Example of Report showing ETAT Review Comments & Degree of Effect.

**Table 1. Degree of Potential Effect on Recorded Cultural Resources**

| Degree of Effect  | Guidance  |
|-------------------|---|
| Potential Dispute | Project is not in compliance with Section 106 of the NHPA; Chapter 267 FS; Chapter 872 FS; Section 4(f); local Comprehensive Plans; and/or affects an existing MOA or commitment under historic preservation laws.  |
| Substantial       | Project has potentially substantial effects on cultural resources such as historic bridges, human burials, ethnic community resources, Native American sites, or National Historic Landmarks. Project will require substantial public involvement and coordination with historic preservation community and need substantial mitigation to gain acceptance. |
| Moderate          | Project has effect on cultural resources. Moderate historic preservation community opposition to the planned project. Public involvement is needed to seek alternatives more acceptable to the historic preservation community. Some mitigation or minimization is needed to gain support.  |
| Minimum/None      | Project has minimum effect on cultural resources. Minimum historic preservation opposition to the planned project. Little or no mitigation is needed.   |
| Enhanced          | Project has positive effect on the cultural resources. Historic preservation community supports the proposed project.   |

**3.6.2 Determining the Cultural Resources Level of Effort for projects not in ETDM**

The Agency Operating Agreement discussed earlier defines two broad categories of project activities and defines the level of cultural resource analysis required to ensure compliance with Section 106. The complete AOA in Exhibit 3.1\* lists the details and a brief summary is provided below:

1. Six types of minor projects are exempt from FDHR/SHPO review and are considered in compliance with Section 106 if they meet the following conditions:
  - The activity is a stand alone project; and
  - The activity does not include and is not located in or adjacent to any historic/archeological resources of 50 years of age or older; nor listed on the NRHP; nor is it a National Historic Landmark.
  - The project must be limited to one of the six activities specified in the AOA.
  
2. The AOA also defines 57 minor project activities that, due to their nature and definition, are unlikely to affect historic or archeological properties. These types of projects require a desktop evaluation and field review by FDOT prior to advancing the

project to the next phase of development. The objectives of these reviews are to review existing information regarding known cultural resources and assess the likelihood that unrecorded archaeological sites or historic resources exist within the project vicinity. FDOT coordination and consultation with SHPO or ACHP is not required for these types of project improvements, provided:

- FDOT bases its decisions concerning historic site evaluations and effect determinations according to the requirements of the National Historic Preservation Act and 36 C.F.R. Part 800 and these decisions are made by individuals meeting the minimum professional qualifications established by the Secretary of the Interior's Standards and Guidelines for historians, archaeologists, architectural historians, and other professionals.
- FDOT makes no evaluation of eligibility of properties for the National Register of Historic Places without consulting with the FHWA (or any lead federal agency) and SHPO pursuant to 36 CFR 800. For non- federally funded projects FDOT will consult with the Florida Division of Historic Resources (FDHR) pursuant to Chapter 267 and 872 of Florida Statutes.
- FDOT finds that there are no properties affected by the undertaking or that the undertaking will have no effect on historic resources. FDOT will document and file the finding in accordance with procedures. FDOT will notify the SHPO of its finding no historic properties affected within 30 calendar days of completing its review accompanied by a map showing the project description, location and area of potential effect. Unless the SHPO objects within 15 days of receiving the notification, FDOT is not required to take any further action in the Section 106 process, unless there is a dispute.
- If FDOT finds a potential for effect on historic resources, FDOT will consult with SHPO, and a technical study conducted by FDOT qualified staff or consultant will be conducted.

### **3.7 FEATURED HYPERLINKS**

ETDM (Efficient Transportation Decision Making process)

<http://fdotenvironmentalstreamlining.urs-tally.com/>

Transportation Equity Act for the 21st Century

<http://www.fhwa.dot.gov/tea21/index.htm>

ETDM Guidelines

<http://fdotenvironmentalstreamlining.urs-tally.com/Library/default.htm>

Florida Geographic Data Library (FGDL)

<http://www.fgdl.org>

Florida Master Site File (FMSF)

<http://dhr.dos.state.fl.us/preservation/sitefile/>

**EXHIBIT 3.1**  
**AGENCY OPERATING AGREEMENT**

**Florida State Historic Preservation Officer (SHPO)  
and Advisory Council on Historic Preservation (ACHP)  
Agency Operating Agreement (AOA)  
August 15, 2003**

|   |      |  |   |      |
|---|------|--|---|------|
| José Abreu, P.E.<br>Secretary<br>Florida Department of Transportation                         | Date |  | Glenda E. Hood.<br>Secretary<br>Florida Department of State   | Date |
| James E. St. John<br>Date<br>Florida Division Administrator<br>Federal Highway Administration |      |  | Janet Snyder Matthews, Ph. D.<br>State Historic Preservation Officer<br>Florida Department of State | Date |
| John Fowler<br>Executive Director<br>Advisory Council on Historic Preservation                | Date |  |   |      |

### Introduction

The ETDM process is designed to accomplish the streamlining objectives identified in Section 1309 of the Transportation Efficiency Act for the 21st Century. The ETDM Process creates linkages between land use, transportation, and environmental resource planning initiatives, through early, interactive agency involvement. In implementing the ETDM process, all ETAT agencies are responsible for reviewing and commenting on transportation improvements consistent with their respective agencies statutory and regulatory authority. Process objectives include effective/timely decision making without comprising environmental quality, full and early public and agency participation, integrating NEPA reviews with issuance of project permitting and implementing meaningful dispute resolution mechanisms. The results of the ETDM process include concurrent actions and approvals, interactive planning, efficiency gained from technology, and ultimately better transportation decisions. The tables below identify the information available from the project's purpose and need, to technical reports and environmental documents. The tables also identify the agency's review responsibilities from project planning through compliance with NEPA and permit approvals, to construction and maintenance. The tables have been divided into three basic phases of a transportation project: planning, programming, and project development. Program and project efficiency is gained by two environmental screening events that occur at the transportation planning and programming phases. The Planning and Programming Screens apply only to major capacity improvement projects, including roadway widenings, new roadways, new rail systems and bridge projects.

### Planning Screen

In Metropolitan Planning Organization (MPO) areas, the Planning Screen will occur on capacity improvements contained in the Long Range Transportation Needs Plan and prior to the development of the MPO Long Range Transportation Plan with the exception of the Florida Intrastate Highway System (FIHS) facilities. FIHS facilities will be screened during the development of the FIHS Cost Feasible Plan, by FDOT, for both the MPO and non-MPO areas. FDOT staff are responsible for uploading the FIHS project information into the ETDM Database.

The table below identifies the information available to the SHPO during the Planning Screen (via the ETDM database). The table also addresses FHWA/FDOT and the SHPO ETAT representative review and coordination responsibilities. The review will take place on the interactive ETDM Web site and all comments will be entered directly into the ETAT review database.

**Florida State Historic Preservation Officer (SHPO)  
and Advisory Council on Historic Preservation (ACHP)  
Agency Operating Agreement (AOA)  
August 15, 2003**

| ETDM Database (MPO, FDOT, FGDL)  | FHWA/FDOT Responsibilities   | SHPO Responsibilities   |
|--|--|---|
| <ul style="list-style-type: none"> <li>■ Purpose and Need</li> <li>■ Project limits and logical termini</li> <li>■ Mobility Alternatives</li> <li>■ SHPO and ACHP plans and programs</li> <li>■ Demographics (Community Impact Assessment)</li> <li>■ Example GIS Data Sets:               <ul style="list-style-type: none"> <li>– SHPO Preservation Areas</li> <li>– National Register Listed and National Register Eligible sites</li> <li>– Historical &amp; Archeological Surveys</li> <li>– National Historic Landmarks</li> <li>– FNAI Element Occurrence</li> <li>– CARL Projects</li> <li>– National Wetlands Inventory polygons</li> <li>– 100 Year Flood Plains</li> <li>– TNC Ecological Resource Conservation Areas</li> <li>– Potential habitat for species</li> <li>– Species locations (FNAI and WILDOBS)</li> <li>– Ecosystem Management Areas</li> <li>– Streams with 303(d) impaired waters</li> <li>– Wetlands</li> <li>– Areas targeted for habitat conservation</li> <li>– Historical/Archaeological District and Sites</li> <li>– Areas within coastal barrier resource area</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>■ In MPO areas, assist in developing the Purpose and Need Statement and establishing logical termini</li> <li>■ In non-MPO areas, FDOT in consultation with FHWA establishes Purpose and Need Statement and logical termini.</li> <li>■ In MPO and non-MPO areas, establishes Purpose and Need for FIHS projects</li> <li>■ Ensure project information is available for ETAT review</li> <li>■ ETDM Coordinator will consult and resolve project issues, where feasible</li> <li>■ Produce the Planning Summary Report which will comprise the following key components:               <ul style="list-style-type: none"> <li>– Project Description</li> <li>– Purpose and Need statement</li> <li>– Agency comments, issues and recommendations for potential direct impacts</li> <li>– System-wide GIS mapping depicting social, cultural, and natural resources</li> <li>– Potential secondary and cumulative impact issues and recommendations</li> <li>– Summary of public involvement comments</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>■ Review and comment on Purpose and Need for project</li> <li>■ Review and comment on logical termini</li> <li>■ Review and comment on mode choice and mobility alternatives (demand management, transit, highways)</li> <li>■ Review and comment on order of magnitude of impact</li> <li>■ Identify significant archeological and historical issues</li> <li>■ Input agency plans and programs that affect the project area</li> <li>■ Identify need for future agency involvement and anticipated agency coordination and consultation</li> <li>■ Identify resource management policies, goals and objectives</li> <li>■ Recommend course of action to preserve and protect resources</li> <li>■ Evaluate potential secondary and cumulative impacts</li> <li>■ Provide Project Recommendations</li> <li>■ Submit comments electronically within 45 calendar days of notification</li> <li>■ The Planning Summary Report will be made available to the ETAT representatives through the ETDM Web site.</li> </ul> |

**Florida State Historic Preservation Officer (SHPO)  
and Advisory Council on Historic Preservation (ACHP)  
Agency Operating Agreement (AOA)  
August 15, 2003**

| ETDM Database (MPO, FDOT, FGDL)  | FHWA/FDOT Responsibilities | SHPO Responsibilities |
|--|----------------------------|-----------------------|
| <ul style="list-style-type: none"> <li>- FDEP Watershed Planning &amp; Coordination Water Quality Data</li> <li>- US Census Bureau, Census Block Groups, 1990</li> <li>- Coastal Zone Construction Control Line (per FDEP)</li> <li>- Best available Aerial Photos or DOQQs</li> <li>■ Example Secondary and Cumulative Impact GIS Data Sets:               <ul style="list-style-type: none"> <li>- Existing Land Use Map</li> <li>- Future Land Use Map</li> <li>- Maps of approved population and employment projections by TAZ or Census Tract data                   <ul style="list-style-type: none"> <li>- Density and growth maps</li> </ul> </li> <li>- Location and type of approved developments, including DRIs (Regional Planning Council or Local Governments)</li> <li>- Delineated urban service area boundaries (MPO or Local Planning Agency)</li> <li>- Existing and future roadway network, Needs Plan (MPO or FDOT)</li> <li>- Location of existing and proposed public lands and conservation easements (WMDs or RPC)</li> <li>- Existing and proposed Mitigation Areas (Resource Agencies)</li> <li>- Defined neighborhoods (MPO or Local Government)</li> </ul> </li> </ul> |                            |                       |

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**A. MINOR PROJECT ACTIVITIES WITH NO EFFECT ON HISTORICAL PROPERTIES AND ARE EXEMPT FROM CONSULTATION WITH DIVISION OF HISTORICAL RESOURCES (DHR)**

The following project types due to their nature and definition are exempt by this agreement from DHR review and are found in compliance with Section 106 provided the following conditions are met:

- The activity is a stand alone project; and
- The activity does not include and is not located in or adjacent to any historic/archeological resources of 50 years of age or older; nor listed on the NRHP; nor is it a National Historic Landmark
- The project must be limited to one of the activities specified below.
  1. Installation of fencing, signs, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur
  2. In kind replacement or ordinary repair of existing lighting, guardrails, traffic signals, curbs, and sidewalks
  3. Activities included in the State's highway safety plan under 23 USC 402
  4. Preventive maintenance activities such as joint repair, pavement patching, shoulder repair and the removal and replacement of old pavement structure
  5. Restore, rehabilitate, and/or resurface existing pavement
  6. Restoring and rehabilitating existing bridge (including painting, crack sealing, joint repair, scour repair, scour counter measures, fender repair, bridge rail or bearing pad replacement, seismic retrofit, etc.)

**B. MINOR PROJECT ACTIVITIES REQUIRING SECTION 106 DESK TOP AND FIELD REVIEW**

The following project types due to their nature and definition are unlikely to affect historic or archeological properties and are subject to a desk top evaluation and field review by FDOT prior to advancing the project to the next phase of development.

FDOT coordination and consultation with SHPO or ACHP is not required for these types of project improvements, provided:

1. FDOT bases its decisions concerning historic site evaluations and effect determinations according to the requirements of the National Historic Preservation Act and 36 C.F.R. Part 800 and these decisions are made by individuals meeting the minimum professional qualifications established by the Secretary of the Interior's Standards and Guidelines for historians, archaeologists, architectural historians, and other professionals.
2. FDOT makes no evaluation of eligibility of properties for the National Register of Historic Places without consulting with the FHWA (or any lead federal agency) and SHPO pursuant to 36 CFR 800. For non-federally funded projects FDOT will consult with the Florida Division of Historic Resources (DHR) pursuant to Chapter 267 and 872 of Florida Statutes.

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3. FDOT finds that there are no properties affected by the undertaking or that the undertaking will have no effect on historic resources, hence no consultation with SHPO is required.
4. If FDOT finds a potential for effect on historic resources, FDOT will consult with SHPO

Minor highway project types requiring Section 106 Desktop and/or Field Review are:

1. Activities which do not involve or lead directly to construction, such as planning and technical studies; grants for training and research programs; research activities, as defined in 23 United States Code (USC) 307; approval of a unified work program and any findings required in the planning process pursuant to 23 USC 134; approval of statewide programs under 23 CFR 630; approval of project concepts under 23 CFR, Part 476; engineering to define the elements of a proposed action or alternatives so that social, economic, and environmental effects can be assessed; and Federal-aid system revisions which establish classes of highways on the Federal-aid highway system.
2. Approval of utility installations along or across a transportation facility.
3. Construction of bicycle and pedestrian lanes, paths, and facilities
4. Transfer of Federal lands pursuant to 23 USC 317 when subsequent action is not an FHWA action.
5. The installation of noise barriers, or alterations, to existing publicly-owned buildings to provide for noise reduction.
6. Landscaping.
7. Emergency repairs under 23 USC 125.
8. Acquisition of scenic easements.
9. Determination of payback under 23 CFR, Part 480 for property previously acquired with Federal-aid participation.
10. Improvements to existing rest areas and truck weigh stations.
11. Ride-sharing activities.
12. Bus and rail car rehabilitation.
13. Alterations to facilities or vehicles in order to make them accessible for elderly and handicapped persons.
14. Program administration, technical assistance activities, and operating assistance to transit authorities to continue existing service or increase service to meet routine changes in demand.
15. The purchase of vehicles by the applicant where the use of these vehicles can be accommodated by existing facilities or by new facilities which themselves are within a CE.
16. Track and rail-bed maintenance and improvements when carried out within the existing right-of-way.
17. Purchase and installation of operating or maintenance equipment to be located within the transit facility and with no significant impacts off the site.
18. Promulgation of rules, regulations, and directives.
19. Adding or lengthening turning lanes (including continuous turn lanes), intersection improvements, channelization of traffic, dualizing lanes at intersection and inter-changes, auxiliary lanes, and reversible lanes.

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20. Flattening slopes; improving vertical and horizontal alignments.
21. Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.
22. Restore, replace and rehabilitate culverts, inlets, drainage pipes, and systems including safety treatments.
23. Widening, adding roadway width and and/or roadway reconstruction shoulders without adding through traffic lanes.
24. Roadway skid hazard treatment.
25. Upgrade, removal, or addition of guardrail.
26. Upgrade median barrier.
27. Install or replace impact attenuators.
28. Upgrade bridge end approaches/guardrail transition.
29. Upgrade railroad track circuitry.
30. Improve railroad crossing surface.
31. Improve vertical and horizontal alignment of railroad crossing.
32. Improve sight distance at railroad crossing.
33. Railroad crossing elimination by closure, and railroad overpass removal within right-of-way.
34. Clear zone safety improvements, such as fixed object removal or relocation.
35. Screening unsightly areas.
36. Freeway traffic surveillance and control systems.
37. Motorist aid systems.
38. Highway information systems.
39. Preventive maintenance activities such as joint repair, pavement patching, shoulder repair and the removal and replacement of old pavement structure.
40. Restore, rehabilitate, and/or resurface existing pavement.
41. Computerized traffic signalization systems.
42. Widening of substandard bridge to provide safety shoulders without adding through lanes.
43. Replacement of existing bridge (in same location) by present criteria.
44. Transportation enhancement projects involving acquisition of historical sites and easements, or historical preservation.
45. Preservation of abandoned railway corridors, including the conversion and use for pedestrian, equestrian, or bicycle trails.
46. Rehabilitation and operation of historic transportation buildings, structures, or facilities, including railroad facilities and canals.

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47. Mitigation of water pollution due to highway runoff.
48. Bridge removal.
49. Approvals for disposal of excess right-of-way or for joint or limited use of right-of-way, where the proposed use does not have significant adverse impacts.
50. Rehabilitation or reconstruction of existing rail and bus transit buildings and ancillary buildings where only minor amounts of additional land are required, and there is not a substantial increase in the number of users.
51. Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks, and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic.
52. Acquisition of land for hardship or protective purposes for a particular parcel or a limited number of parcels; advance land acquisition loans under section 3(b) of the Urban Mass Transportation Act.
53. Mitigation Projects.
54. Animal crossings
55. Changes in access controls.
56. Minor right-of-way acquisition for roadway and bridge projects without the addition of through traffic lanes.
57. Recreational Trails

**C. FDOT REVIEW PROCESS FOR MINOR PROJECTS**

1. Internal Review: For these minor project types listed in B, FDOT qualified cultural resource staff/consultants, including an archeologist and architectural historian/historian, meeting the Secretary of Interior's Standards for Professional Qualifications will employ a multi disciplinary approach to implement the following internal review process, as appropriate to the project:
  - a. Determine if the project constitutes an undertaking as defined in 36 CFR, Part 800
  - b. Determine the project's area of potential effects
  - c. Review existing information (including the Florida Master Site File) on recorded properties in the area of potential effects
  - d. Assess the likelihood that unidentified properties exist in the area of potential effects
  - e. Determine the degree of existing disturbance within the area of potential effects, performing a field inspection where warranted
  - f. Conduct a field survey in conformance with the applicable standards in Stipulation C, where warranted
  - g. Determine whether there are historic properties in the area of potential effects
  - h. Assess the project's effects on any historic properties, by applying the Criteria of Effect and Adverse Effect (36 CFR 800.9)

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2. Eligibility Evaluations: FDOT will make no determination of eligibility of properties for the National Register without consulting with the FHWA and the SHPO pursuant to 36 CFR 800.4(c).
3. Notification and Coordination: For projects that do not include properties within the area of potential effects or that by their nature will have no effect on historic properties, FDOT shall document and file the finding in accordance with procedures. FDOT will notify the SHPO of its finding no historic properties affected within 30 calendar days of completing its review accompanied by a map showing the project description, location and area of potential effect. Unless the SHPO objects within 15 days of receiving the notification, FDOT is not required to take any further action in the Section 106 process, unless there is a dispute.

**Programming Screen**

The Programming Screen will be performed annually on all bridge projects contained in the Annual Bridge Repair and Replacement Report and on major capacity improvement projects contained in the MPO’s list of priority projects prior to inclusion into FDOT’s Five-Year Work Program with the exception of the FIHS facilities. The FIHS facilities for MPO and non-MPO areas will be screened during FDOT’s development of the FIHS Ten-Year Plan. FDOT staff will be responsible for uploading the FIHS project information into the ETDM database. Major capacity improvements and bridge projects located on the State Highway System in rural areas will also undergo review prior to inclusion into FDOT’s Five-Year Work Program.

The Programming Screen begins the Intergovernmental Coordination and Review (ICAR) process, which begins what was formerly the Advance Notification (AN) process. The ICAR process applies only to major transportation capacity improvement projects (as described in Section 3 of the Master Agreement) that are subject to the EDTM process. The ICAR process is initiated by the FDOT District Office by notifying all ETAT members that the Programming Screen has been uploaded with project related information and is ready for ETAT review. Distribution of the Programming Screen ICAR notice is accomplished by FDOT utilizing the Environmental Screening Tool (EST). Once all ETAT members, including central units of State government, which may have plans, programs or projects affected by the proposed transportation action have received the electronic notice, they begin their review of the proposed transportation action by viewing the Programming Screen and providing technical advice, assistance and comment.

| <b>ETDM Database (MPO, FDOT, FGDL)</b>  | <b>FHWA/FDOT Responsibilities</b>  | <b>SHPO and ACHP Responsibilities</b>  |
|---|--|--|
| <ul style="list-style-type: none"> <li>■ Intergovernmental Coordination and Review Process</li> <li>■ Coastal Zone Consistency Determination</li> <li>■ LGCP Consistency</li> <li>■ Goals of the State</li> <li>■ Clean Air Act Conformity Designation</li> <li>■ SHPO and ACHP plans and programs</li> <li>■ Demographics (Community Impact Assessment)</li> </ul> | <ul style="list-style-type: none"> <li>■ Distribute ICAR to agencies including all ETAT representatives</li> <li>■ Determine Level of NEPA Environmental Documentation (Class of Action Determination)</li> <li>■ Publish Notice of Intent for EIS</li> <li>■ Establish an interdisciplinary project team</li> <li>■ Consult with SHPO and ACHP on Archeological and Historic resources</li> </ul> | <ul style="list-style-type: none"> <li>■ Review and comment on ICAR</li> <li>■ SHPO and ACHP assigns project manager</li> <li>■ SHPO and ACHP becomes Cooperating Agency, as appropriate</li> <li>■ Review and comment on project impacts: Quantity and types of Archeological and Historical protected sites identification and need for consultation</li> <li>■ Review and comment on Class of Action</li> </ul> |

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| ETDM Database (MPO, FDOT, FGDL)   | FHWA/FDOT Responsibilities  | SHPO and ACHP Responsibilities   |
|---|---|--|
| <ul style="list-style-type: none"> <li>■ Example GIS Data Sets:               <ul style="list-style-type: none"> <li>– Critical Wildlife Designations (FWC)</li> <li>– Historical and Archeological sites</li> <li>– SHPO and ACHP Preservation Areas</li> <li>– Fish and Wildlife Conservation Commission Management Areas</li> <li>– FNAI Element Occurrence</li> <li>– CARL Projects</li> <li>– National Wetlands Inventory polygons</li> <li>– 100 Year Flood Plains</li> <li>– TNC Ecological Resource Conservation Areas</li> <li>– Potential habitat for species</li> <li>– Species locations (FNAI and WILDOBS)</li> <li>– Ecosystem Management Areas</li> <li>– Streams with 303(d) impaired waters</li> <li>– Wetlands</li> <li>– Areas targeted for habitat conservation</li> <li>– Areas within coastal barrier resource area</li> <li>– FDEP Watershed Planning &amp; Coordination Water Quality Data</li> <li>– Best available Aerial Photos or</li> <li>– DOQQs</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>■ Produce Programming Summary Report which will comprise the following key components:               <ul style="list-style-type: none"> <li>– Project Description</li> <li>– Purpose and Need statement</li> <li>– Class of Action Determination</li> <li>– System-wide mapping depicting social, cultural, and natural resources</li> <li>– Agency comments, issues, and recommendations for potential direct impacts</li> <li>– Preliminary outline of the Project Development scope</li> <li>– Dispute resolution issues</li> <li>– Summary of public involvement comments</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>■ Initiate agency analysis of the project concepts and possible typical sections</li> <li>■ Perform project scoping activities based on review of ETDM databases and project information and identifying required technical studies prior to the beginning of the project development phase</li> <li>■ Review and comment on summary of community issues, and public concerns</li> <li>■ Participate in dispute resolution, if necessary, to assist the ETDM Coordinator in identifying solutions to project concerns. Participate in ETAT Review Committee, as needed, to review and resolve conflicts at an informal local level</li> <li>■ Submit comments electronically within 45 calendar days</li> <li>■ The Programming Summary Report will be made available to the ETAT representatives through the ETDM Web site.</li> </ul> |

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**Project Development Documentation**

During project development, the SHPO and ACHP will assist the FDOT in compliance with National Historic Preservation Act and 36 CFR 800 to satisfy NEPA and permit issues and concerns so that the resultant approvals are acceptable to all parties and received concurrently. The table below identifies the reports and coordination responsibilities for FDOT, FHWA and the SHPO and ACHP ETAT representative. Project development studies or environmental documents may require the development and maintenance of a project Web site. The ETDM interactive database will have links to the project development Web sites for agencies to continue their electronic reviews.

For federally funded major transportation capacity improvement projects, which do not individually or cumulatively have a significant environmental effect on the human and natural environment a Categorical Exclusion (CE) will be prepared. The CE level of conceptual engineering, environmental analysis and public involvement will be documented in technical support studies and be of sufficient detail to support the CE determination. For those major transportation capacity improvement projects that do not qualify for a Categorical Exclusion, an Environmental Assessment or Environmental Impact Statement will be completed, in compliance with the CEQ regulations implementing NEPA and 23 CFR 771. For non-federally funded major transportation capacity improvement projects requiring a State Environmental Impact Report (SEIR) will follow the same process used for federal documents.

| FDOT  | FHWA   | SHPO and ACHP ETAT Reviews  |
|---|--|---|
| <b>Preliminary Alternatives Analyses</b>  |  |   |
| <ul style="list-style-type: none"> <li>■ Develop and analyze alternatives</li> <li>■ Assess major impacts of all alternatives</li> <li>■ Consult with SHPO regarding potential impacts and Best Management Practices (BMPs) for mitigation</li> </ul>   | <ul style="list-style-type: none"> <li>■ Participate in development of alternatives</li> </ul> | <ul style="list-style-type: none"> <li>■ Review and comment on preliminary alternatives and analysis</li> </ul>   |
| <b>Technical Reports</b>  |  |   |
| <ul style="list-style-type: none"> <li>■ Complete technical studies as defined by ETAT and scope of services, such as:               <ul style="list-style-type: none"> <li>– Cultural Resource Assessment (CRA)</li> <li>– Wetland Evaluation Report (WER)</li> <li>– Endangered Species Biological Assessment (ESBA)</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>■ Review and comment on technical reports</li> </ul>    | <ul style="list-style-type: none"> <li>■ Within 30 calendar days of notification, review and comment on technical reports</li> <li>■ Provide technical assistance, as needed.</li> <li>■ For projects determined to be CEs, permits will be issued upon completion and acceptance of technical studies and issuance of Location and Design Concept Acceptance (LDCA)</li> </ul> |

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| FDOT  | FHWA   | SHPO and ACHP ETAT Reviews   |
|---|--|--|
| <b>EA/DEIS</b>  |  |  |
| <ul style="list-style-type: none"> <li>■ Incorporate WER,CRA, ESBA and other technical reports into Environmental Document</li> <li>■ Complete EA/DEIS and submit to SHPO and ACHP for review</li> <li>■ Apply for project permits after the public hearing.</li> </ul> | <ul style="list-style-type: none"> <li>■ Review and approve EA/DEIS with comments incorporated (30 calendar days)</li> <li>■ Publish Notice of availability of DEIS in Federal Register</li> </ul> | <ul style="list-style-type: none"> <li>■ Review and comment on EA/DEIS within 30 calendar days of notification</li> </ul>  |
| <b>Public Hearing</b>   |  |  |
| <ul style="list-style-type: none"> <li>■ Identify opportunities, constraints and feasibility of Joint Public Notice and Hearing, if appropriate</li> <li>■ Hold Public Hearing</li> <li>■ Prepare transcript and certification</li> </ul>                               | <ul style="list-style-type: none"> <li>■ Attend hearing and participate as necessary</li> </ul>  | <ul style="list-style-type: none"> <li>■ Attend joint public hearing and participate as necessary</li> <li>■ Provide technical assistance on public hearing topics to satisfy Section 106, NEPA and permitting requirements</li> </ul> |
| <b>FONSI/FEIS</b>   |  |  |
| <ul style="list-style-type: none"> <li>■ Document decisions in FONSI and FEIS</li> <li>■ Complete FONSI/FEIS and submit to SHPO and ACHP for review</li> <li>■ Respond to comments</li> <li>■ Obtain project permits concurrent with NEPA approval</li> </ul>           | <ul style="list-style-type: none"> <li>■ Review FEIS or FONSI</li> <li>■ Approve FONSI or FEIS</li> <li>■ Publish notice of FEIS availability in FR</li> <li>■ Issue Record of Decision</li> </ul> | <ul style="list-style-type: none"> <li>■ Review FONSI or FEIS and concur within 30 calendar days on NEPA and permit compliance</li> </ul>  |
| <b>Final Design</b>   |  |  |
| <ul style="list-style-type: none"> <li>■ Environmental reevaluation and consultation with SHPO and ACHP and FHWA on any major design modifications</li> </ul>   | <ul style="list-style-type: none"> <li>■ Approve Environmental Reevaluation</li> <li>■ Participate in reviews to monitor implementation of EA or FEIS commitments</li> </ul>                       | <ul style="list-style-type: none"> <li>■ Consult with FDOT on design modification and project mitigation measures to assure commitment compliance with EA/FONSI or FEIS</li> </ul>   |

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|--|---|--|
| <b>Construction and Maintenance</b>  |   |  |
| <p>For those projects not subject to 373.4137, F.S., the following applies:</p> <ul style="list-style-type: none"> <li>■ Monitor implementation of mitigation measures as required by permit</li> <li>■ Correct deficiencies found as required by permit</li> <li>■ Prepare periodic reports on mitigation activities and provide to resource agencies</li> <li>■ Monitor implementation of mitigation measures under Section 106 by agreement and submit to SHPO as appropriate.</li> </ul> | <ul style="list-style-type: none"> <li>■ Monitor implementation and status of mitigation efforts and sites</li> </ul> | <ul style="list-style-type: none"> <li>■ Review periodic reports, field reviews and consult with FDOT on mitigation success, as necessary</li> </ul> |

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**ACHP Involvement**

The Advisory Council on Historic Preservation will be consulted only when the project activity involves a National Historic Landmark or when there is a dispute between review agencies. The ACHP has delegated all other responsibilities to the Florida SHPO. However the SHPO may request the participation of the ACHP. This agreement may not be construed to prohibit the right of any party to request the participation of the ACHP as set forth in 36 CFR, Part 800 regulations implementing section 106 of the National Historic Preservation Act (NHPA).

**Engineering Information**

The level of engineering detail required to obtain permits during the NEPA process is a critical element in the new ETDM Process. In the new ETDM process both NEPA documents and permit applications will be developed using conceptual engineering information supported by required technical studies. An important efficiency of the ETDM process is the development, through interagency coordination and consultation, of one set of engineering and environmental data to satisfy both the NEPA process and the Federal and State regulatory environmental permitting process, concurrently; thereby, eliminating duplication and delay and maintaining production schedules. Utilizing one set of engineering and environmental data and concurrent processing, and with the specified information provided below, permits will be issued by the permitting agencies which provide special conditions outlining the estimated water quality, water quantity, and floodplain encroachment volumes required to meet agency technical review requirements.

**Permits Obtained during Project Development**

The level of conceptual engineering and project information to be supplied during the Project Development phase is sufficient to meet the State Permit Agencies (WMD/FDEP) requirements for “reasonable assurance” that state water resources, and interest criteria are protected. This will be accomplished through early involvement and interagency coordination and consultation. By providing this information to the permit agencies earlier in the project development phase and applying for construction permits during the Project Development phase, FDOT will be able to request and receive the WRP or ERP contained in Chapter 373, Part IV, F.S., Sovereign Submerged Lands contained in Chapter 253, F.S., and Coastal Construction Control Line permits contained in Chapter 62B-33, F.A.C. The issuance of the Water Quality Certification will then allow the Federal permit agencies such as the Corps of Engineers and the U.S. Coast Guard to issue their respective permits concurrent with NEPA. The duration of each permit will be of sufficient length to allow the FDOT to complete the necessary project production phases and begin construction, (i.e. ten years or longer).

**Environmental Reevaluation and Permits**

Each project is reevaluated, in consultation with FHWA, by FDOT, prior to advancing to the next phase of project development. During the reevaluation phase consultation with permit and resource agencies will occur where major design changes effecting the permit have occurred, or where permits, whose effective date may expire prior to project construction have been identified and a time extension in permit duration is needed that will allow for construction to be completed, or where commitments are being implemented or require change.

**EXHIBIT 3.2**  
**CULTURAL RESOURCES CONSIDERATIONS**

## **CULTURAL RESOURCES CONSIDERATIONS**

### **Jurisdictional Considerations**

1. Is the project adjacent to or does it cross any tribal lands?
2. Does the project cross lands owned or managed by an agency or jurisdictional authority of the federal or state government?

### **Survey Considerations**

1. Has an archaeological or historic survey been conducted for the proposed project? Study area? General vicinity?
2. When were the surveys conducted?
3. Were the surveys conducted by a CRM professional or firm who meets the Secretary of the Interior's standards? (See Appendix K.)
4. What was the level of detail of the survey?
5. Were resources identified and evaluated during the survey?
6. What was the purpose of the survey?

### **Resource Considerations**

1. Are archaeological sites located in or immediately adjacent to the proposed project? Study area? General vicinity?
2. Are historic resources located in or immediately adjacent to the proposed project? Study area? General vicinity?
3. Are archaeological or historic resources listed in the NRHP located in the project area or in the immediate vicinity of the proposed project area?
4. Are archaeological or historic resources designated potentially eligible for listing in the NRHP (by SHPO or Tribal Historic Preservation Officer [THPO]) located in or immediately adjacent to the proposed project?
5. Are archaeological or historic resources determined as not eligible for inclusion in the NRHP (by SHPO or THPO) located in or immediately adjacent to the project?
6. Are archaeological or historic resources not evaluated for potential inclusion in the NRHP (by SHPO or THPO) located in or immediately adjacent to the project?
7. Are archaeological or historic resources considered of special importance to the local community located in or adjacent to the proposed project?
8. Are there historic resources associated with a community that has been previously impacted by a transportation project?

9. Are archaeological or historic resources considered of special importance to Native Americans located in or immediately adjacent to the proposed project?
10. Are archaeological or historic resources considered of special importance to a particular ethnic group located in or immediately adjacent to the proposed project?
11. Is a cultural resource having National Historic Landmark status located in or immediately adjacent to the proposed project? Study area? General vicinity?
12. Is an archaeological or historic district or districts located in the proposed project? Study area? General vicinity?
13. Is a historic cemetery located in the proposed project? Study area? General vicinity?
14. Is the condition of the archaeological and/or historic resources potentially associated with the proposed project known?
15. Is a historic bridge located in the proposed project? Study area? General vicinity?

### **Probability Considerations**

1. Are known archaeological sites located within a one-mile buffer zone of the proposed project?
2. Are known historic resources located within a one-mile buffer zone of the proposed project?
3. Does a probability model exist for the county within which the project is located? If yes, was it ranked HIGH or MODERATE?
4. Are county property appraiser's records available for the project area? (See Appendix H.)
5. By using the property appraiser's information (if available), are contiguous concentrations of resources that are 40 years of age or older located within or adjacent to the proposed project?
6. Is the setting of the proposed project similar to that in which known cultural resources occur?
7. Are wetlands (ponds, lakes) located in the immediate vicinity of the proposed project?
8. Are watercourses (rivers, streams) located in the immediate vicinity of the proposed project?
9. Are well-drained soils located in the immediate vicinity of the proposed project?
10. Do areas of elevated topography occur in relation to wetlands and watercourses along the proposed project?
11. Is a historic bridge or bridges located along the proposed project?
12. Is the project located on documented man-made land?

## **Technical Study Considerations**

1. Does an archaeological or historic resource that has not been evaluated by the SHPO, THPO, or NRHP exist within the proposed project? Study area? General vicinity?
2. Does an archaeological or historic resource listed in the NRHP exist within the proposed project? Study area? General vicinity?
3. Does an archaeological or historic resource previously designated (by SHPO or THPO) as potentially eligible for listing in the NRHP exist within the proposed project? Study area? General vicinity?
4. Does a cultural resource with National Historic Landmark status exist within the proposed project? Study area? General vicinity?
5. Does an archaeological or historic resource of special importance to the local community exist within the proposed project area? Study area? General vicinity?
6. Does an archaeological or historic resource of special importance to Native Americans exist within the proposed project? Study area? General vicinity?
7. Does an archaeological or historic resource of special importance to a particular ethnic group exist within the proposed project? Study area? General vicinity?
8. Is the proposed project within an area designated by a county as having a moderate or high probability for archaeological sites?
9. Does the property appraiser's data indicate a high concentration of contiguous buildings that are at least 40 years of age in the project?

**CHAPTER 4**  
**SITE IDENTIFICATION:**  
**THE CULTURAL RESOURCE ASSESSMENT SURVEY**

*Public involvement and consultation are key elements intended to be ongoing throughout the four steps of the revised Section 106 process. The type of public involvement will depend upon various factors, including the nature and complexity of the undertaking, the potential impact, the historic property, and the likely interest of the public in historic preservation issues. Refer to Chapter 2 for an overview of the Section 106 process and a list of participants.*

**CHAPTER 4**  
**SITE IDENTIFICATION:**  
**THE CULTURAL RESOURCE ASSESSMENT SURVEY**

**4.0 OVERVIEW**

The second step of the Section 106 process begins with the identification of cultural resources, including both archaeological sites and historic structures. In this chapter, the work requirements associated with the background research and field survey elements of the standard cultural resource assessment survey (CRAS) are described. The identification of both archaeological sites and historic structures is included. Site evaluation as well as documentation requirements are explained in Chapters 5 and 6, respectively.

The following sections are covered in this chapter:

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**4.1 PRELIMINARY ADMINISTRATIVE ACTIONS**

Prior to the initiation of project-specific cultural resource investigations, the FDOT Project Manager will:

- Determine the level of required cultural resource assessment and documentation
- Define the Area of Potential Effect (APE)

**4.1.1 Determining the Level of Investigation**

Based upon the nature of the proposed transportation project activities (i.e., road widening, bridge replacement, drainage project, enhancement project, road jurisdiction transfers), and with reference to the classes of action identified in the [PD&E Manual, Chapter 12](#), the Department Project Manager will determine the level of cultural resource assessment and documentation. Levels of effort can range from a records review and reconnaissance survey to intensive field survey preceded by background research. Survey requirements will generally depend upon right-of-way needs and potential ground disturbance activities as defined by the project action. As per the *Manual*, three options are applicable:

1. No Cultural Resource Assessment Survey is required (i.e., no potential to cause effects)
2. Records Review and the SHPO/FHWA Consultation is required
3. A standard Cultural Resource Assessment Survey is required

With the third option, as noted above, a CRAS may involve a two-phase investigation. This is typically the case for retention pond and mitigation area siting projects that occur during the design phase of project development. Two-phase investigations also occur in undertakings that require a preliminary alternatives analysis or a corridor study. The two phases of the cultural resource investigation for a corridor study include: 1) background research and windshield survey of the study corridor, including alternative alignments, and 2) field survey and CRAS report for the preferred alignment(s); that is, the Area of Potential Effect (APE). The first phase of the corridor study process is sometimes referred to as a Preliminary Alternatives Development and Review (PAD&R). It provides an estimate of the effects of a proposed undertaking on cultural resources early in project development so that the alignments selected avoid or minimize adverse effects. Thus, the results of the corridor study are used to determine reasonable alternative alignments for consideration within the project area. The written product of the Preliminary Alternatives Development and Review may be included as the “Archaeological and Historical Features” section of a Master Plan or Environmental Data Collection Report. The second phase, the field survey, is part of a standard CRAS, which is the subject of Sections 4.4 and 4.5 of this chapter.

In the special case of [road jurisdiction transfers](#), coordination between the District Environmental Management Office (DEMO), the District Planning Office, and the Division of Historical Resources (DHR) of the Department of State is required. After receiving the local government’s resolution approving transfer of a road off the State Highway System, the District Planning Office requests a Historical and Archaeological Survey from the DEMO. This request should include right-of-way maps for the road. In accordance with Section 267.061(2)(a), F.S., the DEMO affords the DHR a reasonable opportunity to provide written comments on the results of the survey. If the survey finds no evidence of cultural resources, or if the transfer will not adversely affect any such resources that are found, the DEMO provides documentation, including the DHR comments, to the District Planning Office. If there is evidence of historical or archaeological resources that would be adversely affected by the transfer, the transfer must be delayed until a mitigation plan is in place. This plan, developed by the DEMO in consultation with the DHR, includes a commitment from the local government to maintain the resources. The plan and supporting documentation must be forwarded by the DEMO to the District Planning Office for inclusion in the request for transfer.

#### **4.1.2 Defining the Area of Potential Effect (APE)**

It is the responsibility of the Department Project Manager to establish the project area or Area of Potential Effect (APE), in coordination with the SHPO and FHWA. The **APE** is defined as “the geographic area(s) within which the proposed undertaking may cause changes in the character or use of historic properties listed or eligible for listing in the *National Register Historic Places [NRHP]*” ([36 CFR 800.2\[c\]](#)). In defining the APE, the full range of possible impacts, both direct and indirect, must be considered.

***Direct impacts are effects caused by an undertaking. Work that is undertaken directly on a property that has the potential to alter its NRHP quality is a direct impact. An undertaking within the APE that introduces visual, audible, or atmospheric effects and has the potential to alter those qualities of the property that make it eligible for NRHP inclusion would also be a direct impact. Indirect or secondary impacts are effects that may occur as an indirect result of an undertaking whenever the undertaking induces or makes possible related activities which have the potential to alter the NRHP quality of a property or its setting. Indirect impacts are generally removed in either time or distance from the undertaking. Indirect impacts include changes in transportation patterns, land use, population densities or growth rates, and other reasonably foreseeable impacts.***

Be aware that the project area is not always the same as the right-of-way limits, particularly in the assessment of historic structures that may be impacted by the proposed undertaking. The type and extent of construction activities, the horizontal and vertical limits of proposed ground disturbance, and the placement of project related staging, such as borrow pits, waste, and mitigation areas must be considered. Also consider right-of-way acquisitions, temporary easements, and temporary access roads. In addition, consider the introduction of project-associated visual and aesthetic, noise, and atmospheric impacts, as well as changes in vehicular access. ***For example***, a project within sight of a historic property that is listed in or eligible for listing in the *NRHP* may be within its “view shed,” and therefore may have potential visual impacts. The introduction of increased noise levels in the vicinity of a previously isolated historic structure may also have an effect. Rely on the appropriate specialists for noise levels, atmospheric information, and other relevant studies.

Be sure that the initial definition of the APE is large enough to accommodate minor project design changes without requiring additional cultural resource investigations. Include a definition of the geographical limits of the project area, with modifications, in the written CRAS report which follows field survey. Clearly identify the project area on field maps and maps in the CRAS report; maps are often in the form of 1"=200' blue line aerials. Ideally, they should be scaled no smaller than 1"=100' for urban areas and 1"=400' for rural areas. ***For example***, if the proposed undertaking is a bridge replacement that requires a standard CRAS, consider at a minimum one or more of the following:

- New and existing rights-of-way for bridge replacement re-routes
- Surrounding neighborhoods and type of bridge to be constructed (larger and/or higher structures may impact historic vistas or change the character of a surrounding historic neighborhood)
- Associated features such as retention ponds and borrow areas
- Whether or not the bridge is historic

If the proposed undertaking is a highway construction and/or improvement project requiring a standard CRAS consider one or more of the following:

- Location and number of alternative alignments
- Right-of-way necessary for existing or new typical sections (rural or urban)
- Surrounding land use(s); i.e., historic (potentially *NRHP* eligible) neighborhoods
- Access roads
- Water retention areas
- Other associated construction features

#### **4.1.3 Time and Cost Considerations**

When cultural resource consultants are needed to perform the CRAS, several factors need to be considered in evaluating the estimated labor needs and related costs for the project. Unless otherwise specified, a cultural resource assessment survey includes both archaeological sites and historic structures. Thus, labor estimates must include hours for archaeologists as well as architectural historians. Labor estimates should reflect hours to complete background research, research design, field survey, analysis, draft and final reports, and administration time for planning, coordination and meetings. Related project expenses typically include reproduction costs for background research documents, travel, per diem, film and film processing, report reproduction and binding, and express mail. For projects containing potentially significant cultural resources located within the APE, where early consultation with the SHPO may be advisable, round trip airfare to Tallahassee is often included in the cost proposal.

The level of effort for archaeological field survey is tied to both the size of the project area as well as the differential areas of site location potential. An alignment measuring only a few kilometers in length may take longer to archaeologically survey than a much longer and wider corridor if the smaller contains a higher percentage of acreage considered having a high probability for sites. Consultants base their labor estimates on the approximate number of shovel tests needed in high, medium, and low probability zones, plus additional tests needed to areally delimit the estimated number of resources identified. Working in two-person teams, each team can ordinarily excavate 20 shovel tests per day. For most archaeological field surveys, one or two teams are used. Other factors to consider when estimating time and labor needs include compliance with the [Underground Facility Damage Prevention and Safety Act \(“Dig Safe”\) \(Chapter 556, F.S.\)](#) (see Section 4.4.2.2), coordination with property owners, problems of access, and travel to and from the work site. All can add substantially to the actual hours needed to perform the fieldwork.

Historic structures field survey is typically conducted by a two-person team, often a senior historian/architectural historian and a historical technician. Labor estimates are based on the number of historic structures (including bridges and cemeteries) within the APE, as well as the number of potential historic districts (and how many contributing structures are included within each district). Factors that may add considerably to the time and labor needs include the number of resident property owners interviewed for site-specific information, records research to document dates of construction and other relevant data, and travel. Project corridors that cross multiple counties will necessitate travel to courthouses often separated by considerable distance. How many hours does it take to document (photograph and collect information for the FMSF) a single historic structure? Including travel, research, fieldwork, and documentation, four to six hours per structure

is a safe estimate. The time needed to prepare a Request for Determination of Eligibility (DOE) for potentially eligible historic structures typically requires a minimum of 50 hours per individual resource; it is difficult to estimate labor needs for a *NRHP* district DOE request due to the broad range of possibilities; i.e., a high-density residential district with dozens of contributing structures versus a small commercial district with only a few historic structures.

## 4.2 BACKGROUND RESEARCH

Background research is conducted to identify and review the types of cultural resources present in the project area, their chronological associations, settlement patterning, and other pertinent findings. It also provides the contexts useful in evaluating the *NRHP*-eligibility of newly identified archaeological sites and historic structures resulting from the cultural resource assessment survey.

The basic sources for data collection at the state, regional, and local levels are discussed in the following subsections.

### 4.2.1 Florida Master Site File (FMSF)

Background research begins at the [Florida Master Site File \(FMSF\)](#), which is the state's clearinghouse for information on archaeological sites, historic resources, and field surveys for such sites. It consists of several systems of paper and computer files and is administered by the Bureau of Archaeological Research (BAR), Division of Historical Resources (DHR), Florida Department of State. Located in the R.A. Gray Building at 500 South Bronough St. in Tallahassee, the FMSF contains files for more than 90,000 site entries. It should be noted that FMSF data is typically 3-6 months behind receipt of reports and site files. Thus, available information may not be current with actual work performed in the vicinity of the CRAS project area.

FMSF personnel can provide limited research or photocopying services for a maximum of 15 minutes per consultation. Accordingly, for most projects it is necessary for the consultant to send a member of its staff to access the FMSF, conduct research, photocopy reports and FMSFs, etc. The FMSF also accepts computerized site files and downloads computerized data to its users. Contact the Administrator of the FMSF for detailed information (850/487-2299) and updating of the FMSF's capabilities. A variety of information may be obtained at the FMSF, including:

- National Historic Landmark and *NRHP* listings and nominations
- FMSF forms for historic resources, cemeteries, bridges, and archaeological sites
- Previous cultural resource assessment survey (CRAS) reports
- FDOT county highway maps
- USGS quadrangle maps
- State Historic Highways list
- GIS digital data

**4.2.1.1 National Historic Landmark and National Register listings and nominations:**

These resources are listed by county in an index compiled from FMSF entries; check the compilation date on the index for timeliness; the site file is always behind receipt of materials. Therefore, the most recent listings in the *NRHP* may not be included in the index. Therefore, it is advisable to also check the [NRHP Information System \(NRIS\)](#), a database that contains information on places listed in or determined eligible for the *NRHP*.

**4.2.1.2 FMSF forms for historic resources, cemeteries, bridges, and archaeological sites:**

The 90,000+ entries are also indexed by county and accessible by individual FMSF number. In order to quickly review listed archaeological and historic sites in and near one's project area, request a one-line-per-site summary from the computer files. This entails a FMSF staff member doing a computer search for all sites in whichever Township, Range, and Section area(s) the project is located. For all sites, this includes site number, site name, *NRHP* status, and Township-Range-Section location. For historic structures, street address, city, and present use or function are included. For archaeological sites, site descriptive codes and a list of archaeological cultures represented supplement the basic information. An individual FMSF form for each resource is available in hard copy. Ask FMSF personnel for assistance.

**4.2.1.3 Previous Cultural Resource Assessment Survey (CRAS) reports:**

These are indexed by county, FMSF survey report number, and author(s). Each CRAS report has a "survey identification number;" these reports are all filed numerically by survey identification numbers in the FMSF office for easy access. Most reports are lengthy (50-250 pages) so copying can be a time-consuming process. Photocopies are \$0.15 per page at the FMSF.

**4.2.1.4 FDOT County Highway Maps:**

The locations of previous CRASs are delineated on individual county highway maps. Each survey location is labeled with the appropriate FMSF "survey identification number." These survey identification numbers correspond to the appropriate CRAS reports.

**4.2.1.5 USGS Quadrangle Maps:**

The location of each National Historic Landmark and *NRHP* site and/or district, or archaeological site is identified by FMSF number on appropriate quadrangle maps. In order to determine which particular USGS quadrangle map indicates the location of a given site, take one of the following steps: 1) refer to the paper FMSF form for that site; 2) if you have a FMSF generated one-line-per-site summary of sites in the vicinity of your project area (see 4.2.1.2) refer to that; and 3) consult with a FMSF staff member. Each USGS Quadrangle map in the FMSF is indexed to a specific location in the FMSF map drawers; see the "Topographical Map Index".

**4.2.1.6 State Historic Highways List:**

A list of State Historic Highways and copies of the laws designating them are also available.

**4.2.1.7 GIS Digital Data:**

Locations of surveys and cultural resources are available through the FMSF.

#### 4.2.2 Survey and Registration Section, DHR

The Survey and Registration Section of the Florida Department of Historical Resources is also located in the R.A. Gray Building in Tallahassee. Information available here includes the **Preliminary Site Information Questionnaire (PSIQ)**. This form, completed for many *NRHP* eligible buildings along with the DHR response, provides a good source of information about potentially *NRHP* eligible structures, which may be located within a project area. However, DHR's records are incomplete and there is no official printout or listing of these files. Visit the Survey and Registration Section and ask for assistance from staff.

**Pending or Draft National Historic Landmark and *National Register* Nominations** are another source of information regarding historic structures throughout Florida. However, there is no official printout or listing of these nominations. Contact staff at the Survey and Registration Section for assistance.

#### 4.2.3 Florida Department of Environmental Protection (DEP)

Important background information is also located at the DEP, 3900 Commonwealth Boulevard in Tallahassee. Here, historic plat maps, federal surveyor's field notes, and tract book entries are available online at <http://199.73.242.56/>. (Note: Plat maps use the document code STM and tract book records use SFT.) Various maps, charts, and military records, as well as Spanish Land Grants also are on file at DEP. Most accessible information is on microfilm; however, some data is in the vault (using the vault is strongly discouraged, so inquire about accessibility and ask for assistance). Copies of microfilmed data are readily available. The cost varies depending on the items to be copied. Some items can be ordered by phone or mail through the Field Note Specialist (Title and Records Section 850/488-8123). When writing or calling the DEP be sure to provide township, range, and section data; ask for a total dollar amount and forward a check. Following receipt of the check, DEP will provide the data. This process can take several weeks, so order well in advance.

When visiting the DEP, begin research at the Title and Records Section, Room 153. A receptionist or planner is available to direct inquiries and assist in obtaining access to documents.

#### 4.2.4 Other State, Regional, and Local Sources

Other project specific information can be found at local libraries, archives, and regional repositories. Some of these are as follows:

**4.2.4.1 State Agencies:** The Florida State Library and Archives in Tallahassee, and special historical collections throughout the state university system provide a good source of state and regional data.

The Florida Department of Transportation may have documents pertaining to many older bridge and road construction projects. Contact the Surveying and Mapping Section in the Lafayette Building at the Koger Center in Tallahassee (850-448-2250); the FDOT Docu-

ment Control office at 850-487-1850, and the Structures Design file room at 850-488-2432.

The Florida Department of Transportation Bridge Inspection Office in each district is a repository of state-owned bridge inventory and appraisal information. To find out quickly if a particular bridge is historic (50 years of age or older), contact the appropriate district office, identify the bridge(s) in question by its six digit bridge number (these numbers are found on all FDOT bridges and sometimes are listed in the Scope of Services), and ask for Structural Inventory Assessment (SIA) and Bridge Management Inventory System (BMIS) forms. The SIA and BMIS forms provide bridge construction dates, construction material, bridge length, etc.

**4.2.4.2 Regional and Local Agencies:** Regional and local libraries, as well as museums, may be repositories for community (regional, county, city) histories, early city and county maps, unpublished manuscripts, photographic collections, and U.S. Department of Agriculture (USDA) soil survey reports.

Certified Local Governments (CLGs), local preservation boards or commissions, and local Main Street Programs are good sources for local economic development data and early building information. A list of CLG and [Main Street](#) cities and counties is available at the DHR.

**4.2.4.3 Private Organizations and Individuals:** Historical societies, preservation organizations, local news media, and long time residents may be able to provide specialized data, or introduce special authorities regarding local cultural resources. In addition, the outside professional will often benefit from the local population's own perspective of what is historically important. Interviews with local informants are a valuable source of information.

## 4.3 RESEARCH DESIGN

### 4.3.1 Introduction

The research design (also referred to as a Technical Proposal) provides an overall plan to guide the location, identification, and evaluation of cultural resources. It addresses all phases of investigation, from background research to report preparation. At a minimum, the research design contains the project name and location, the overall approach and specific methodologies to be employed, a listing of previously identified *NRHP* sites, structures, and districts; as well as previously recorded FMSF structures. The potential for unrecorded archaeological sites and historic structures, and a map identifying zones of archaeological probability are also included. The research design is submitted to the Department for review and approval prior to initiating the field survey.

### 4.3.2 Predictive Model Formulation for Archaeological Sites

A primary component of the research design is a discussion of project expectations vis-à-vis the types of cultural resources expected to occur, as well as their probable locations. This is based largely on the background research, combined with an examination of pertinent maps, and takes into account precontact and historic period archaeological sites, as well as historic structures. In addition, the research design considers the nature of the FDOT undertakings; i.e., the limited size and scope of the project area (linear corridor, pond site, bridge replacement, etc.), and adapts the research design as appropriate.

**4.3.2.1 Precontact Archaeological Sites:** Predicting the types of as yet unrecorded precontact period archaeological sites, as well as where they might be expected to occur entails a synthesis of relevant background research findings. Also, an examination of USGS quadrangle and USDA soil maps, project-specific aerial maps, and a familiarity with the archaeology of the area as presented in previous CRAS reports and in [Florida's Historic Contexts](#) are necessary. The following considerations are important in preparing a predictive model for precontact sites:

- Previous researchers have demonstrated certain environmental factors to be accurate predictors of precontact site location. These variables include proximity to a freshwater source, soil drainage, landform, relative elevation, and local vegetation, among others.
- Different types of sites may be expected in different types of environments. *For example*, while shell middens are always situated along coastal waterways such as estuaries, bays, lagoons, and river mouths, lithic and artifact scatters are likely to occur in most environments (nonwetland).
- In general, relatively elevated, better-drained lands proximate to (within 100 m) a freshwater source are considered to have a high potential for precontact site location. As one moves away from the water source, site expectancy diminishes. Zones of moderate probability are often defined as situated between 100 and 300 m of potable water.
- Existing conditions within the project area may be at variance with the environmental conditions observed on the USGS quadrangle and USDA soil maps, thus presenting certain constraints on investigation. Factors such as recent residential and commercial developments, mining, dredging and filling, and other landscape alterations may affect the possibility of intact archaeological deposits in high and moderate probability zones based on ecological models. *For example*, land adjacent to a river bridge crossing, classified as having a high site location potential, may not yield evidence of an archaeological site due to the deposition of deep fill. Similarly, an area depicted in historical documents as the site of a Seminole War period fortification may today be the location of a shopping mall.

Thus, expectations are explicitly stated and defended by local or regional settlement data and models. Expectations without any justification or the uncritical and untested application of predictive models for other regions are not acceptable procedures.

**4.3.2.2 Historic Period Archaeological Sites:** The anticipated locations for sites should be based on an understanding of historic land use patterns and historic documents. Useful sources in predicting where these kind of cultural resources occur include:

- Nineteenth-century plats and field notes - These documents, examined during the background research, often show the locations of forts, homesteads, roads and trails, battle sites, Native American agricultural fields, mounds, etc.
- Tract Books - These may indicate the potential for early homesteads, not shown on the plats.
- Sanborn Maps - In urban areas, these insurance maps help determine the types of older residential and commercial structures which once occupied the project area. The maps may help identify buried features such as household refuse, wells, cisterns, and outbuilding foundations.
- Other documents - Local histories and maps depict locations of no longer extant historic features such as military forts, cemeteries, sugar mills, saltworks, sawmills, work camps, old docks and wharves, abandoned roads and railroad lines.
- Local informants - Individuals, including self-described “history buffs,” artifact and memorabilia collectors, historical society members, and long-term residents, are often valuable sources of information about local sites. Interviews by telephone or in person can provide details that are otherwise undocumented.

### **4.3.3 Historic Resources Considerations**

Based on the background research, the research design for historic resources takes into account the specific historical development of the roadway and its environs. It also addresses broad social, economic, architectural, technological and ethnic trends in the project area, and provides a general idea of the number, type, and location of historic resources (buildings, bridges, cemeteries) anticipated in the project area. The latter is usually field-verified with a reconnaissance survey of the project area and surrounding vicinity. It should focus on historic resources that are located:

- Immediately adjacent to a right-of-way (R-O-W), plus within the first one or two rows of buildings behind the proposed R-O-W
- At cross streets where turn lanes and intersection widening are planned
- In the general vicinity of the proposed undertaking in order to determine if the project area is part of, or adjacent to, a potentially eligible *NRHP* district

While some structures may not appear to be 50 years old, historically important, and/or architecturally significant at first glance, historic research may indicate otherwise. Furthermore, historic associations with significant individuals or events may not be readily apparent. So, broad and inclusive background research, an initial inventory, assessment of the adequacy of existing site data, an estimate of what more may be available, and an estimation of what action will be required to complete the record are critical to the historical portion of a research design.

Another pertinent consideration includes defining what is historic. According to the *NRHP* criteria of eligibility, historic resources generally are defined as those being 50 years of age or older. However, for multi-year road projects, record resources that are not yet 50 years old so as to avoid re-survey prior to actual road construction. As the post World War II building boom nears 50 years of age, the number of buildings requiring survey and assessment will increase dramatically. Another exception to the 50-year criterion is the category of properties of exceptional significance. *For example*, Launch Complex 39 at the Kennedy Space Center, constructed in 1968 for America's pioneer "man in space" program, is listed in the *NRHP*. See [National Register Bulletin 22](#) for guidelines for evaluating and nominating properties that have achieved significance within the last 50 years.

*NRHP* properties must also be considered. The research design specifies all previously recorded historic properties within or adjacent to the project area that have been recorded as eligible or potentially eligible for listing in the *NRHP*. This information is gathered during the background research and is critical to preparation of the research design. The boundaries of any listed or potentially eligible districts, as well as the locations of contributing structures within or proximate to the project area, should be delineated. The reconnaissance survey and thorough background research and familiarity with previous work in the project area should overcome any errors of omission resulting from time lag at the FMSF.

Finally, historic bridges should not be overlooked. Use FDOT's publication *The Historic Highway Bridges of Florida* (revised 2003) for a list of historic bridges considered significant.

#### **4.3.4 Methodology and Site Evaluation Criteria**

The research design also addresses how cultural resources, both archaeological and historical, are to be identified and evaluated. *For example*, archaeological survey methods should address subsurface testing intervals for high, moderate, and low probability zones; the use of mesh screens to recover artifacts; the way discovered sites will be bounded; etc. The application of [NRHP Criteria of Eligibility](#) for assessment of site significance should also be made explicit. For descriptions of the *NRHP* eligibility criteria and process of site evaluation, see Chapter 5.

### **4.4 HISTORIC RESOURCE SURVEY**

#### **4.4.1 Introduction**

The purpose of the historic portion of the cultural resource assessment survey is to locate,

identify, and assess, according to [NRHP criteria](#), the significance of any historic resources that may be impacted by the proposed project. This effort provides the FHWA, FDOT, and the SHPO (also described here as Division of Historic Resources [DHR]) with data sufficient to determine whether the proposed undertaking may affect significant historic resources. It also provides, in accordance with the 1990 DHR Guide, “a basis for evaluating measures to avoid, minimize or mitigate any adverse project impacts to such resources and to enhance any beneficial effects.”

Field survey methodology adheres to the standards contained in the DHR’s Historic Preservation Compliance Review Program Guide; [Chapter 12 of the PD&E Manual](#); and [National Register Bulletin 24](#), “Guidelines for Local Surveys: A Basis for Preservation Planning.”

#### **4.4.2 Project Planning**

Prior to the initiation of field survey, the project architectural historian or historian performs several tasks. These include the following:

- Gathering and reviewing background research data
- Procuring maps of the project area
- Assembling equipment such as cameras (one for black-and-white prints, one for color slides or prints, if necessary)
- Addressing safety concerns

**4.4.2.1 Background Research:** Sometimes previous surveys have identified historical or archeological resources in the project area and they are listed in or are eligible for listing in the *NRHP*. Other times, previous surveys have identified properties as being not eligible for *NRHP* listing. As a precaution, field survey methodology requires re-evaluation of these resources, since the passage of time or changing interpretations of significance may affect their current eligibility.

**4.4.2.2 Maps:** Aerial photographs marked with the proposed undertaking (i.e., existing and proposed R-O-Ws, proposed pond sites, wetland mitigation areas, etc.) usually are obtained from the FDOT Project Manager. The APE should be clearly indicated on the maps, which should also include a scale.

Transfer all information concerning previously recorded standing buildings, cemeteries, bridges and *NRHP* districts obtained during background research, initial reconnaissance survey, and preparation of the research design to the appropriate aerials. Color-coding of previously recorded FMSF buildings, structures and *NRHP* districts to be recorded during fieldwork is helpful. Annotate aerials with street names and other fixed landmarks. It is easy to become disoriented in the field, especially if the aerials are several years old and show structures, which have been torn down, or roads that have been closed.

It is also a good idea to use a set of USGS quadrangle maps in the field; these will show the location of structures as of the date of map preparation. Older USGS maps are particularly helpful in identifying historic structures.

**4.4.2.3 Letter of Authorization:** Historic field survey may require the examination of structures in private ownership. Follow the procedures described in Section 4.5.2.3 of this chapter for securing access to privately owned land.

**4.4.2.4 Field Equipment and Supplies:** Equipment needs will vary depending on the size and type of project. For standard historic structure surveys, two 35mm cameras, one with black-and-white print film, and one with color slide film or sometimes color print film, are needed. Extremely large surveys may require the use of a video camera to record historic districts and vistas.

**4.4.2.5 Safety:** In general, follow the procedures described in Section 4.5.2.5 of this chapter. Also, historic structures field surveys often occur in areas where extra precautions are necessary. Off-duty police officers, sheriff deputies, or private security services can be hired if the study area has a high crime profile or is located near a number of abandoned buildings. Camera equipment is expensive and may draw attention to the surveyors.

### **4.4.3 Survey Methods**

Initial field survey tactics include a preliminary examination or reconnaissance of the project area and the adjacent surroundings. During actual field survey, the recording of historic structures generally focuses on parcels of land within or adjacent to the project area. However, if the project will impact other structures such as those located behind the initial line of buildings along a highway corridor, for example, the latter are also examined, recorded, and evaluated. Also, historic structures on side streets near planned modified intersections are recorded. In addition, be aware that some structures located well out of the project area may need to be recorded if the land parcel they occupy abuts the highway corridor or project area. This is particularly true if the structure on the parcel in question is potentially *NRHP* eligible. Work closely with Department personnel to identify such situations and determine the best approach.

Further, it is standard practice to record a resource during the field survey even if the recorder is unsure about the date or potential importance of the resource because additional research might indicate the property is indeed significant; the decision can be made later whether to include the property in the final inventory. The components of a typical historic assessment survey include the following:

- Initial reconnaissance
- Recording historic buildings
- Recording historic bridges
- Recording historic cemeteries
- Data collation

**4.4.3.1 Initial Reconnaissance:** The initial reconnaissance is the first stage of historic field survey, and includes a drive-through or walk-through of the project area. Typically, this takes place when the research design is prepared, prior to the actual field survey or structure recording. The purpose of the initial reconnaissance is to identify conditions that

may help or hinder the field survey as well as to verify the location of:

- Buildings, bridges, and cemeteries previously recorded in the FMSF
- *NRHP* eligible or listed sites or districts
- Unrecorded structures which appear on initial review to be at least 50 years old

**4.4.3.2 Recording Historic Resources:** Visually examine each resource sufficiently to complete the data required by the Florida Master Site File Historical Structure Form, to the extent possible. Draw a sketch, and take two or more black-and-white photographs. Take color slides or prints as appropriate to the project. Digital photographs are acceptable if they meet the minimum specifications of 1200 x 600 resolution and 2.5 megapixels. In addition:

- Make a concerted effort to **interview** the owner or occupant of each building, as well as other knowledgeable individuals within the neighborhood or community. The information derived is particularly useful in determining the historical importance of individual structures. Inform the owner/neighbor of your purpose, present a letter of authorization, and ask about the history of the property and any additions or alterations that have been made to the interior and exterior of the building. NOTE: If permission is denied, limited research is conducted from road R-O-Ws or sidewalks (public domain) until FDOT officials have settled the problem.
- After receiving permission to be on the property, determine **geographic boundaries** of the property by visual inspection. *For example*, if the main building is to be recorded, its outbuildings and landscape features also are noted on the FMSF form. The outbuildings and landscape features, both above and below ground, are included in the property description and sketch map as well.
- Once boundaries are determined, each resource and surrounding outbuilding is visually examined and a historical structure **FMSF form** completed (**Exhibit 4.6**). Always adhere to the latest available edition of [Guide to the Historical Structure Form of the Florida Master Site File](#).
- Take black-and-white **photographs** and color slides or prints (where applicable) of buildings, outbuildings, and landscape features included on the form. Maintain a **photographic log** with the number of the negative, the subject of the photograph taken and the direction of view (**Exhibit 4.7**).
- While at the site, draw a composite **sketch map** of the site plan including the basic footprint of the building(s) and their respective roof lines. Note northerly direction, relationship to closest roadway, and significant landscape features on each map.
- After completion of on-site fieldwork, perform additional site-specific **research** sufficient to evaluate the structure according to *NRHP* criteria, as well as completing the FMSF form. Visit the county Property Appraiser's Office, local historical

societies, and libraries to obtain construction dates, owner's names, subdivision information, etc.

**4.4.3.3 Recording Historic Bridges:** Historic bridge recording is an integral part of many FDOT undertakings, particularly PD&E projects. Bridges and culverts may be evaluated as part of a corridor study, or individually as part of a bridge replacement project. Standard evaluation procedures require historic properties adjacent to a bridge to be recorded and evaluated, as well. In addition, when proposed alterations include the addition or replacement of a raised bridge, the consultant extends survey considerations to historic properties within view of the proposed structure, at a minimum. Procedures for documenting historic bridges include the following:

- **Interview** local informants. Bridge evaluations are generally conducted from road R-O-Ws or sidewalks that are public domain. Occasionally, bridges are located on private property (e.g., a historic wooden highway bridge that has been abandoned). If this is the case, make a concerted effort to interview the owner or representative as well as other knowledgeable individuals within the neighborhood or community. Explain your purpose, show them a letter of authorization, and ask about the history of the property and any alterations that have been made to the bridge.
- Determine **geographic boundaries** of the property(ies) by visual inspection. *For example*, although a tender station may be detached from the bridge itself, it is included in the description and sketch map for the property for the FMSF form.
- Once boundaries have been determined, visually examine each structure and surrounding outbuildings, complete the **FMSF Historical Bridge Form (Exhibit 4.8)**, and adhere to the latest guidelines offered by the FMSF Office.
- Take black-and-white **photographs** and color slides or prints (where applicable) of the bridge, dependencies, and landscape features to be included on the form. Maintain a photographic log with the number of the negative, the subject of the photograph taken and the direction of view.
- While at the site, draw a composite **sketch map** of the site plan including the basic footprint of the bridge and approach, dependencies, and notable (or significant) features in the vicinity. Note northerly direction, elevation, and significant landscape features.
- After completion of on-site fieldwork, perform additional site-specific **research** sufficient to evaluate the bridge as per *NRHP* eligibility criteria, as well as complete the FMSF form. Conduct further investigation if needed at local historical societies, libraries, and county offices.

**4.4.3.4 Recording Historic Cemeteries:** Historic cemeteries are recorded during many CRAS projects. Generally, only historic cemeteries located on parcels of land immediately

adjacent to the project corridor are recorded. Follow these procedures:

- Make a concerted effort to **interview** the owner(s) or caretakers of the cemetery, as well as the owner(s) of the property on which the cemetery is located. Also talk to other knowledgeable individuals in the neighborhood or community and/or relatives of those buried in the cemetery. Inform them of your purpose, present them with the letter of authorization, and discuss the history of the cemetery.
- After receiving owner permission, determine the **geographic boundaries** of the property by visual inspection. In some situations only historic sections of a cemetery are recorded in the CRAS. This will have to be determined on a project-by-project basis.
- The present **FMSF Cemetery Form (Exhibit 4.9)** is designed for a grave-by-grave survey; visually inspect each grave and complete the required data on the cemetery form. (NOTE: In some cases it may be more feasible to conduct a general overview survey of the cemetery rather than a grave-by-grave survey). Consult Florida's Historic Cemeteries: A Preservation Handbook and [National Register Bulletin 41](#) "Guidelines for Evaluating and Registering Cemeteries and Burial Places" for survey assistance.
- Take overall views of the cemetery in black-and-white **photographs** and color slides or prints (when applicable). In addition, photographically record any representative characteristics or unique aspects of the cemetery (i.e., grave markers). Maintain a photographic log with the number of the negative, the subject of the photograph taken and the direction of view.
- While at the site, draw a **sketch map**, which includes locations of graves surveyed, boundaries selected, and major vegetation and landscape features of the surveyed area.
- After completion of on-site fieldwork, perform additional site-specific **research** sufficient to evaluate the cemetery according to *NRHP* eligibility criteria, as well as complete the FMSF form. Visit the county Property Appraiser's Office, local historical societies, and libraries to determine the date the cemetery was founded, owner's names, and general history of the cemetery.

**4.4.3.5 Data Collation:** After completing the historic field survey, organize and summarize the survey information for form completion and report writing. This typically includes requesting new site numbers from the FMSF Office, processing photographs and selecting those for inclusion in the CRAS report and FMSF forms, and mapping.

Once the number of resources to be recorded in the FMSF is determined, request the FMSF numbers for each historic structure or feature. The FMSF requires the use of their number assignment Request/Confirmation Form. Once completed, the form is faxed to the FMSF,

who will return it with the assigned number.

After assigning the FMSF numbers to each historic resource to be recorded, complete those sections of the FMSF form which were left blank in the field.

In order to further organize historic field survey data, it is often helpful to locate newly recorded and/or reevaluated historic sites on aerial photographs and/or USGS map(s). When identifying historic districts in this way, also locate noncontributing structures and vacant parcels on the aerial(s) and USGS map(s). This provides a clear understanding of the issues and sites to be discussed and evaluated in the report itself.

## **4.5 ARCHAEOLOGICAL FIELD SURVEY**

### **4.5.1 Introduction**

The purpose of the archaeological portion of the cultural resource assessment survey is to locate, identify, and assess the significance of any archaeological resources within or adjacent to the project area. This effort provides the FHWA, FDOT, and the SHPO with data sufficient to determine whether the proposed undertaking may affect significant archaeological resources. It also provides, in accordance with the 1990 FDHR Guide, “a basis for evaluating measures to avoid, minimize or mitigate any adverse project impacts to such resources and to enhance any beneficial effects.”

Field survey methodology adheres to the standards outlined in the 1990 FDHR’s Historic Preservation Compliance Review Program Guide, which states that “inadequate field methodology will generally result in the report results being determined to be incomplete and insufficient” by the SHPO.

### **4.5.2 Project Planning**

Prior to the initiation of field survey, the consultant performs several tasks. These include the following:

- Procuring maps of the project area
- Complying with the [Underground Facility Damage Prevention and Safety Act](#) (Chapter 556, F.S.)
- Assembling equipment and forms
- Addressing safety concerns

**4.5.2.1 Maps:** Aerial photographs marked with the proposed undertaking(s) (e.g., existing and proposed rights-of-way, pond sites, wetland mitigation areas, etc.) are obtained from the Department. The APE, determined by the FDOT Project Manager in consultation with the FHWA and the SHPO, should be clearly indicated. The consultant should transfer all information concerning previously recorded precontact and historic archaeological sites

(according to the results of the Background Research), as well as High (HPZ) and Medium (MPZ) Zones of Archaeological Probability (ZAPs), onto the aerials. Color-coding of HPZ and MPZ areas is an effective means for distinguishing zones of differential subsurface testing intensity (i.e., 25 or 50-m intervals). Low ZAPs (LPZ) are usually left uncoded. If helpful, annotate the maps and aerials with street names and other fixed landmarks.

It is also a good idea to use a set of USGS quadrangle maps in the field. Aerial photographs do not show contour intervals, and topographic maps are helpful in verifying survey area locations. State and county highway maps, city maps, etc. are also good aids to facilitate access to unknown areas.

**4.5.2.2 Dig Safe:** [The Underground Facility Damage Prevention and Safety Act](#) (Chapter 556, F.S. [1993]) requires that anyone doing any type of excavation, tunneling, or demolishing call (1-800-432-4770) two business days before work begins in order to have underground lines marked at a dig site. Underground facility owners having lines at the dig site are notified by the [Sunshine State One-Call Center](#). Owners then have two business days to mark lines. As “excavators” it is the responsibility of the consultant to call the toll-free number not less than two or more than five business days before beginning work.

This process takes time. *For example*, if a project includes 13 proposed pond sites, location information for each site will be needed. This single phone call may require one or two hours of time. Plan for this. Using the 13 ponds project as an example, expect to receive 13 separate tracking code numbers (“ticket numbers”) from the operator, and as many as 78 callbacks (six utility companies per pond site). Since multiple utility companies may respond for each, it might be useful to create a form for logging callbacks. Plan on two full days before initiating field survey to allow for callbacks, as per the law. Failure to comply with this process may have dire consequences. In the event that lines are inadvertently severed, huge fines may result. Therefore, it is critical to allow sufficient time for this part of the project planning process.

The following procedures are recommended to facilitate compliance with this law:

1. Prepare explicit project location information before calling. For R-O-W projects, be prepared to provide the following information: county, nearest city or town, USGS quadrangle, Township, Range, Section, road or highway, length of project, starting point and ending point. For pond sites or other “off-road” parcels, give frontage roads and dimensions of project area as well as other information mentioned for R-O-Ws.
2. When calling, first provide your name, the name of your company, and when the crew expects to start the project. Tell “Sunshine” the job is an Archaeological Assessment for FDOT. Do not use the word “survey”. This word apparently causes confusion for the operators, who have been instructed not to locate utilities for survey crews.

3. The caller is then asked a series of questions. Clearly state that the project involves only careful hand digging with shovels: mechanical equipment is not used. Give the operator an estimate of the number of shovel tests and their location relative to the R-O-W. If none is located in the R-O-W, make this clear.
4. The operator then provides a “ticket number” and a list of the utilities that they are contacting. If a project involves more than one area (i.e., pond sites), each receives a separate ticket number. Expect possible calls the same day. Most likely, however, return calls will begin the following day.
5. Be prepared for the callbacks. Have a list of all ticket numbers on hand, preferably with the project maps and locations. One of the first questions asked of the utility people is whether hand digging with a shovel measuring about 20 in x 3 ft could impact their buried utility. A pertinent question to ask is whether the utilities are located in the R-O-W only. If this is the case, the utility companies need to mark the entire corridor. In many situations, be prepared to meet the utility company representative in the field.
6. According to the law, an excavator must be given clearance within two business days by any notified utility that determines that its lines are not within the excavation area. Excavation can begin prior to 48 hours if all notified utilities have either marked their lines or given “all clears.”

**4.5.2.3 Authorization for Access Letter:** Archaeological field survey often requires the examination of lands still in private ownership. [Chapter 337.274, F.S.](#) authorizes FDOT agents or employees access to private property for study purposes. However, the rights of the individual property owners are always respected, so ask permission to gain access to privately owned land. In order to facilitate this process, an authorization for access letter stating that you or your company are working as an agent of the FDOT is requested from the FDOT Project Manager. A sample letter is provided as **Exhibit 4.1**. Bear in mind that if permission for access is denied, the crew will be asked to leave. Record the names and addresses of individuals or businesses denying access, and the respective parcels that could not be surveyed as a result. Refer the matter to the FDOT Project Manager whose legal department will work with the property owner to secure access.

**4.5.2.4 Field Equipment and Supplies:** Equipment needs vary depending on the nature and size of the project as well as the types of sites expected. For standard archaeological surveys, shovels and screens equipped with 6.4 mm (1/4-inch) mesh are basic requirements. Excavations of particular types of sites, including precontact shell middens or historic structural features, may necessitate the use of other equipment such as probes, posthole diggers, augers, or remote sensing equipment.

Standardization of data recording through the use of pre-made forms is strongly recommended. A sample form is provided as **Exhibit 4.2**. As shown in this example, the name of the project, date of work, names of persons performing the work, the location as of the survey area(s) (Township, Range, and Section), aerial photograph sheet designation, and USGS quadrangle maps are included. The category of probability zone (high, medium or low), or whether the shovel test was judgmentally placed is also indicated. The number designation, location, and productivity of each shovel test are also recorded. The stratigraphic profile of the shovel test, including depths below surface and soil color descriptions, is included. Finally, a summary statement describing local vegetation, soil disturbances, and the number and type of artifacts recovered is noted.

In addition to shovel test forms, daily project summary sheets may be helpful (**Exhibit 4.3**). The forms are particularly valuable in tracking the results of large-scale projects where hundreds of shovel tests are excavated and numerous sites are discovered. Overall, such a form will provide a running count of the number of shovel tests excavated in each probability zone, and the number and the location of discovered sites. Such forms expedite preparation of final project summaries.

Use recyclable sealing polyethylene plastic bags at least 2 mm in thickness for artifact collection. Paper bags are unacceptable because of the potential for tearing and rapid deterioration and because they cannot be permanently sealed. Provenience information is written on the exterior of all collection bags with permanent markers.

**4.5.2.5 Safety:** Always be prepared for an emergency. Common occurrences such as insect bites might, when involving a particular individual, result in severe allergic reactions. Ask crew members if they have any medical condition of which the project archaeologist should be aware. Venomous snakebites, contact with poisonous plants, skin punctures or lacerations, bone fractures, and heat stroke are all eventualities that must be taken into consideration during project planning. Find out the location(s) of the hospital or emergency clinic nearest each project area and provide this information, along with relevant insurance documents, to the field supervisor. Put this information, including appropriate telephone numbers, in a secure place. Make it clear that in the event of an emergency, immediate action should be taken to seek medical aid. Call the company office as soon as possible to report the problem and receive appropriate instructions.

All field crews should be provided with a good quality, fully supplied first aid kit. This should be checked periodically to see if new supplies are needed to replenish those used. A few gallons of fresh drinking water should always accompany the field party.

### **4.5.3 Survey Methods**

In general, field survey tactics include both initial reconnaissance survey and subsurface testing. The intensity of the latter varies in accordance with the designated zones of high, medium, and low site potential as determined during preparation of the research design. The components of a typical archaeological assessment survey include the following:

- Initial reconnaissance survey
- Systematic subsurface testing
- Judgmental subsurface testing
- Site bounding
- Data collation
- Mapping

**4.5.3.1 Initial Reconnaissance:** The first stage of archaeological field survey is a drive-through of the project area. The goal of this effort is to “ground truth,” or ascertain the validity of the predictive model. Conditions that facilitate or impede planned survey efforts should be noted. Typical considerations include the following:

1. Is subsurface testing in the High Probability Zone(s) (HPZ) and Moderate Probability Zone(s) (MPZ) feasible, or is such work obviated by the presence of constructed features (i.e., parking lots, buildings, etc.), underground utilities, or landscape alterations including ditches and swales, mined land, or dredged and filled land? Is any land within the project area secured behind fencing or posted “No Trespassing?” *For example*, perhaps the survey corridor is included in the Central Business District of a city. Background research may indicate a high potential for both pre-contact and historic archaeological sites. However, due to urbanization, subsurface testing may be limited to vacant lots. Similarly, drainage features such as ditches and swales along a rural roadway may leave only a narrow strip of unaltered land at the outer limit of the R-O-W, severely impeding efforts to conduct systematic shovel testing. Further, the project area may contain privately owned land, and access is restricted or prohibited. If landowner permission cannot be secured, these localities should not be surveyed until the issue has been resolved by FDOT.
2. Are there parcels of cleared and vacant land where ground surface visibility is optimal and/or where access is unrestricted and clear? Such localities are ideal for both surface inspection and subsurface testing.

Following this initial field inspection, the predictive model can then be adjusted to reflect existing conditions. As a result, areas originally considered HPZ or MPZ might be downgraded to LPZ in terms of disturbance or condition and other constraints on investigation. The aerial photographs should be marked with the HPZ, MPZ and sample LPZ areas, according to the predictive model for potential site occurrence, and annotated as appropriate to reflect the conditions observed.

**4.5.3.2 Systematic Subsurface Testing:** In accordance with the FDOT and DHR standards, subsurface testing is conducted by shovel tests. All HPZ and MPZ areas are subjected to systematic subsurface shovel testing at 25- and 50-m intervals, respectively. In addition, at least 10 percent of the LPZ areas are tested at 100-m intervals. Systematic testing should be supplemented by judgmental testing, as appropriate. Low interval testing (i.e., at 5 m) may be appropriate at historic period archaeological sites. The distance between shovel test locations is determined by measured pacing. Also in accordance with DHR standards, “...

the use of soil augers as the primary means of subsurface testing is unacceptable” (DHR Guide 1990:35). While augers may be used to supplement shovel tests to locate sites, augers should not be used to define sites. Discuss any anticipated use of soil augers with the FDOT Project Manager and/or the SHPO personnel, as appropriate.

Many Project Development and Environment (PD&E) projects consist of a narrow corridor. Here, a single line or transect of shovel tests should suffice. For wider R-O-Ws, parallel transects or two lines of tests at offset intervals, forming a general zigzag pattern, provide broader sampling coverage. For proposed pond sites, usually averaging from one to five acres in aerial extent, a strategy combining both systematic and judgmental testing affords the best overall coverage.

Cleared areas with good surface visibility are visually inspected for the presence of surface cultural materials or features. Animal burrows, tree falls, firebreaks, bike trails, cattle paths, and erosion features provide good opportunities for site discovery. Develop good controls for surface collection in the field to minimize selective biases.

Subsurface tests (shovel tests) measure 0.5 m in diameter by a minimum of 1 m in depth. Under certain conditions (i.e., shallow bedrock, saturated soils, or dense modern fill) it may not be possible to penetrate that deeply. Note that according to DHR’s standards (1990: 35), “... sample testing throughout Florida has demonstrated that 30 x 30 cm (or smaller) subsurface units dug to less than 50 cm in depth consistently fail to provide adequate site data....”

All soil removed from each shovel test is screened through 6.4-mm mesh to maximize the recovery of cultural materials. All cultural materials collected from the surface or recovered from the shovel tests are bagged by provenience unit. Provenience information must be written legibly on the exterior of all collection bags in waterproof ink. Provenience information is also written on waterproof tags and either tied to the bag or placed inside the bag. At a minimum the following information is required on all collection bags:

- Project name
- Site name (if applicable)
- Provenience information - will vary depending on type of collection unit, but typically will contain the following:
  1. Collection unit (e.g., excavation unit, shovel test number, feature number, etc.)
  2. Zone or level
  3. Depth (e.g., cm below unit datum, elevation above sea level)
- Date
- Excavator’s name or initials
- Field Specimen (FS) number
- Bag number (e.g., Bag 1 of 3)

Standardized forms help data recording. Pertinent information should include the following:

- Shovel Test number and location: ST4; 50 m north of ST 3
- Stratigraphic profile: 0-20 cm dark gray humus; 20-60 cm light gray fine sand; 60-80 cm black organic pan, weakly cemented; 80-105 cm tan fine sand; 105-110 cm tan clayey sand
- Artifact finds and provenience: Number of artifacts recovered by class (i.e., lithics, ceramics, glass, etc.) and depth below surface: 12 waste flakes, 25-60 cm; 1 ST sherd, 10-20 cm
- Local conditions: This may include a description of the local vegetation: improved pasture; oak hammock, as well as disturbances: plowed field; modern fill to 60 cm

After completing all data recording, fill all shovel tests completely. Failure to replace all the soil may result in serious injuries to individuals, livestock or other animals. In order to facilitate thorough backfilling, a tarp may be spread on the ground close by the shovel test and screening takes place over the tarp. In this manner, all removed soil is quickly and thoroughly replaced in the hole. In landscaped areas, original sod is replaced over the hole to restore the original appearance.

*If human remains are encountered, the contractor shall **immediately** cease work in the immediate area and **immediately** notify the FDOT Project Manager and the Department's Central Environmental Management Office. The procedures outlined in [Chapter 872.05, F.S.](#) must be followed.*

**4.5.3.3 Judgmental Subsurface Testing:** Additional shovel testing in selected areas is appropriate for the purpose of site discovery. Nonsystematic shovel testing may be appropriate in:

- Urbanized environments where pavement, utilities, and constructed features make systematic testing unfeasible
- Project areas with limited HPZs and MPZs but where a larger subsurface test sample may be desirable
- Geographically restricted project areas such as proposed pond sites or bridge replacement areas
- Areas where restricted access, wetlands or other natural or cultural features impede systematic testing at fixed intervals

**4.5.3.4 Other Considerations:** Depending on landscape and environmental factors, past and present, standard archaeological testing methodologies may need to be altered. *For example:*

1. In a deep sandy environment, proximate to present or former water resources,

more closely spaced shovel tests, combining a mixture of fixed transects and judgmentally placed shovel tests, may be needed to locate small lithic scatter sites frequently associated with such environmental features as sink holes.

2. In areas of shallow lime rock, periodic efforts should be made to extend shovel testing below the rock to be certain concretion zones, the result of fire-slaked bone and shell, etc., are not misinterpreted as naturally occurring lime rock. Archaic-period sites often occur within and below such concretion zones in South Florida.
3. In areas that were once shallow, wet prairies around springs or streams, wet sites may be found. Alter field methodology to test such areas sufficiently.
4. In disturbed urban and rural R-O-Ws do not automatically assume that there are no significant precontact and historic sites: carefully consider environmental and historic features which were present before modern land-altering activities; then apply appropriate subsurface testing wherever possible. Some of the most significant sites found in FDOT R-O-Ws, e.g., a historic military cemetery, and precontact burial areas, have been located in highly disturbed areas.

In summary, field methodologies must be sufficient to leave little doubt that all or nearly all sites are identified and bounded in the survey area.

**4.5.3.5 Site Bounding:** In the event that new or previously recorded sites are located, either as a result of surface reconnaissance or subsurface testing, additional subsurface testing is carried out to determine site boundaries, internal structure, and cultural affiliation (where possible). [\*National Register Bulletin 12\*](#) addresses the definition of *NRHP* boundaries for archaeological properties and provides a detailed discussion for bounding *NRHP* eligible sites.

Given the geographically circumscribed nature of many FDOT projects, it may not be possible to areally delineate all discovered sites. This is particularly true for large sites extending several hundred meters outside the APE. In cases of potentially *NRHP* sites, attempt to get an estimate of overall site boundaries, if landowner permission to go beyond the project limits is secured. However, as a general rule of thumb, site limits are not “chased” far from the project area limits. Focus on defining the site limits as contained within the APE.

If standard shovel testing does not yield adequate information and data necessary to evaluate site significance, excavation units larger than shovel tests (i.e., 1 x 1 m) are necessary. Deeply buried sites, for example, require the excavation of one or more 1 x 1-m units to better define the vertical site dimensions and artifact density. Similarly, shell middens or other types of sites exhibiting complex stratigraphy are difficult to evaluate on the basis of standard shovel tests only.

In the case of single artifact occurrences, a single artifact in a non-disturbed context, a minimum of four additional shovel tests is excavated in the cardinal directions at 10-m intervals from the original productive shovel test. The single artifact is recorded as a site.

**4.5.3.6 Data Collation:** During the course of the field survey, collation of data at the end of each fieldwork day minimizes the amount of data loss, and facilitates preparation of site evaluation and report writing. Follow these procedures:

- Each artifact bag from each provenience unit is assigned a **Field Specimen (FS) number**, and the appropriate data are recorded in the FS Log as well as on the artifact bags. A sample FS Log is provided in **Exhibit 4.4**.
- Check bagged specimens against the **FS Log**, and then store them in orderly fashion for processing.
- Prepare **fieldnotes**, on a daily basis, summarizing the work accomplished for the day, the number and location of sites found, and logistical problems. Some investigators may wish to keep these records in project-specific field notebooks. Another option is to complete a standardized **daily project summary sheet** (see **Exhibit 4.3**). For longer projects, a **project summary sheet** is an effective tool for data collation.
- Once artifacts are collected and catalogued, and site boundaries are determined, call the **FMSF** office to request numbers for each archaeological site, and prepare FMSF forms (**Exhibit 4.5**). When calling the FMSF office, be sure to have the following information available:
  1. County or counties in which sites were found
  2. Site type (archaeological/land)
  3. Site names (if assigned)
  4. Township, Range, and Section for each site
  5. Project name
  6. Anticipated submission date of completed FMSF forms

**4.5.3.7 Mapping:** The locations of all surface finds and shovel tests are plotted on the aerial photographs; shovel tests are labeled by number. Positive (artifact and/or feature-bearing) shovel tests are distinguished from negative ones by coding (e.g., X for positive and a black dot for negative).

Make measured **sketch maps** of all discovered sites in the field. Include the location of visible site features, surface artifact finds, artifact concentrations, subsurface tests, site boundaries, nearby markers (such as trees, buildings, roads, etc.), and any other information appropriate to the identification and location of the site. Prepare detailed maps for sites considered to be *NRHP* eligible. These will be included in the CRAS report. Also, plot all site locations on the appropriate USGS quadrangle map(s).

## 4.6 ARTIFACT PROCESSING AND ANALYSIS

### 4.6.1 Introduction

The purpose of artifact processing and analysis is two fold: 1) it identifies and tabulates the various types of artifacts in order to determine a site's chronological placement and function, and aids in determining the site's *NRHP* eligibility, and 2) it treats and prepares artifacts to ensure continued preservation and eventual curation.

At the CRAS level, a limited set of broader analytical techniques generally suffices to provide necessary information for making decisions. These standard types of analyses are described in Section 4.6.3. Specialized analyses such as radiocarbon dating, archaeobotanical studies, or lithic use wear are rarely performed as part of the CRAS project.

### 4.6.2 Processing

Preliminary processing of artifacts includes cleaning and assignment of Field Specimen (FS) numbers to all field labeled artifact bags by shovel test and level provenience. Some artifacts will not need cleaning, but for those that do, wash or clean with a soft-bristle brush to remove extraneous surface debris, carefully rinse them with water if necessary, and let them air dry. If ceramic, bone or shell artifacts need stabilization, this should be taken care of immediately. If organic samples have been collected, they should be sorted, prepared for study or stored separately. Replace all excessively dirty or broken provenience bags, making sure to copy the label information. Divide artifacts into major classes (e.g., precontact ceramics, historic glass, etc.) in final preparation for analyses.

### 4.6.3 Artifact Analyses

Several classes of artifacts and other remains may be collected from sites of the precontact, protohistoric, and historic periods. These include, but are not limited to the following:

**4.6.3.1 Lithics:** The lithic analysis includes the examination of materials with a hand lens or under low-power (10x to 30x) magnification. It includes the initial division of the lithic material into two categories: 1) tool forms/manufacture failures or rejects, and 2) debitage, or waste flakes.

For **lithic tool forms and manufacture failures/rejects** describe and classify them according to basic morphological categories such as bifaces, unifaces, modified flakes/utilized flakes, blanks, preforms, cores, and hammerstones. Measure and weigh all tool forms and describe by raw material type and presence or absence of thermal alteration. Classify diagnostic bifaces (projectile points) as to commonly accepted standard types (e.g., Hernando point). Describe any observable wear patterns on finished tools, and fracture types (e.g., lateral snap). Lithic analysis may also include measurement or relative appraisal (i.e., acute, steep) of the angle(s) of the working edge(s) of tool forms in order to ascertain the functional nature of the artifact assemblage.

Sort **debitage** (waste flakes) by raw material type, and identify by number and percentage the presence or absence of thermal alteration. At a minimum,debitage analysis includes limited attribute analysis (e.g., flake size, amount of dorsal surface cortex). If collection size is sufficient, determine, to the extent possible, what stage(s) of stone tool production are reflected by the waste flake assemblage.

**4.6.3.2 Ceramics:** Ceramics are common at post-Archaic period sites in Florida, and in some parts of the state, they are more common than lithics. Much of the utilitarian ware used by precontact native peoples consisted of vessels with plain, undecorated surfaces. Chronological analysis of such ceramics is sometimes difficult because of the lack of surface decoration. However, careful attention to differences in vessel wall thickness, rim orientation, absolute and relative occurrence of different types of aplastic materials, will aid in the identification of ceramic type, chronological placement, and site function.

Conduct the ceramic analysis in a manner sufficient to assign sherds to a currently recognized standard ceramic type. Determine chronological placement and functional attributes (utilitarian/burial) if possible. This is accomplished by:

- Examining sherds with a hand lens or microscope to identify - aplastic inclusions, exterior decoration and/or treatment manufacturing technology (e.g., coil marks)
- Comparing these attributes with known ceramic assemblages
- Cross-mending of samples of sufficient size and number to determine rim profiles, vessel type, and size

**4.6.3.3 Shell and Bone Artifacts:** Standard analysis of shell and bone artifacts includes examination for traces of wear to determine function, decoration and surface treatment. Describe fully such attributes and compare them to other known assemblages in order to determine chronological and functional associations. Shell tools are common at many precontact sites in Florida, and are an important source of information regarding site function and chronological placement. Do not overlook recent studies in the typological and functional analysis of shell tools.

**4.6.3.4 Other Precontact and Protohistoric Remains:** Occasionally botanical, shell, and food remains are found in shell or black dirt middens encountered during a CRAS. Such samples, while helpful in determining the type of resources that may be present in a site, are typically small in size and insufficient for thorough analysis. Attempt to identify the species and provide fragment counts and weights for the various identified flora and fauna. If the sample(s) is sufficient, consider retaining the services of a qualified individual trained in zooarchaeology or archaeobotany to provide a detailed analysis.

**4.6.3.5 Historic Artifacts:** As with precontact artifacts, identify and tabulate the various types of historic artifacts in order to determine a site's chronological placement, function, and aid in determining the site's *NRHP* eligibility. Utilize standard references for historic artifacts as well as primary sources materials such as catalogues, manufacturer's produc-

tion information, newspaper and magazine advertisements, and discussions with knowledgeable informants.

Like precontact archaeological materials, initially sort by raw material type. *For example*, both ceramics and glass are commonly found at historic period archaeological sites. For ceramics, classify by such attributes as ware type and morphology/function. Describe all makers' marks, and use these to determine the manufacturer and date of manufacture. Similarly, glass is classified in reference to such attributes as color, vessel form and function, and manufacture marks such as seams and lip treatment. Embossments and maker's marks can be used to ascertain manufacturer and date of manufacture.

#### **4.6.4 Curation**

At the completion of the cultural resource assessment survey, all artifacts, field notes, maps, photographs, and other documents are prepared for permanent storage and curation at a Department-designated repository. Appropriate procedures are described in Section 9.7.

## **4.7 FEATURED HYPERLINKS**

36 CFR Part 800 – Protection of Historic Properties

<http://www.achp.gov/regs.html>

Chapter 337.274, F.S.: Contracting; Acquisition, Disposal, And Use Of Property

Chapter 872.05 - Unmarked Human Burials

<http://www.leg.state.fl.us/Statutes/index.cfm?Tab=Statutes&Submenu=1>

Florida's Historic Context

[http://dhr.dos.state.fl.us/bar/hist\\_contexts/comp\\_plan.pdf](http://dhr.dos.state.fl.us/bar/hist_contexts/comp_plan.pdf)

Florida Master Site File (FMSF)

<http://dhr.dos.state.fl.us/msf/>

GLO Survey: Plat Maps and Field Notes

<http://data.labins.org/2003/SurveyData/LandRecords/GLO/index.cfm>

Guidelines for Users: The Florida Master Site File

<http://dhr.dos.state.fl.us/msf/fsfguide.pdf>

Main Street

[http://dhr.dos.state.fl.us/bhp/main\\_st/index.cfm](http://dhr.dos.state.fl.us/bhp/main_st/index.cfm)

National Register Bulletin 12 - Defining Boundaries for National Register Properties

<http://www.cr.nps.gov/nr/publications/bulletins/boundaries/>

National Register Bulletin 22 - Guidelines for Evaluating and Nominating Properties that Have Achieved Significance Within the Past Fifty Years

<http://www.cr.nps.gov/nr/publications/bulletins/nrb22/>

National Register Bulletin 24 – Guidelines for Local Surveys: A Basis for Preservation Planning

<http://www.cr.nps.gov/nr/publications/bulletins/nrb24/>

National Register Bulletin 41 - Guidelines for Evaluating and Registering Cemeteries and Burial Places

<http://www.cr.nps.gov/nr/publications/bulletins/nrb41/>

National Register of Historic Places Information System (NRIS)

<http://www.nr.nps.gov/>

*NRHP* Criteria of Eligibility

[http://www.cr.nps.gov/nr/publications/bulletins/nrb15/nrb15\\_2.htm](http://www.cr.nps.gov/nr/publications/bulletins/nrb15/nrb15_2.htm)

PD&E Manual

<http://www.dot.state.fl.us/emo/pubs/pdeman/pdeman.htm>

Road Jurisdiction Transfers

<http://www.dot.state.fl.us/planning/statistics/pdfs/jurisdictionhandbook.pdf>

Underground Facility Damage Prevention and Safety Act

[http://www.flsenate.gov/Statutes/index.cfm?mode=View%20Statutes&SubMenu=1&App\\_mode=Display\\_Statute&Search\\_String=&URL=CH0556/Ch0556.HTM](http://www.flsenate.gov/Statutes/index.cfm?mode=View%20Statutes&SubMenu=1&App_mode=Display_Statute&Search_String=&URL=CH0556/Ch0556.HTM)

**EXHIBIT 4.1**  
**EXAMPLE AUTHORIZATION FOR ACCESS LETTER**

**LETTER**  
**OFFICIAL AGENCY**

The State of Florida, Department of Transportation, District Seven ("Department"), 11201 N. McKinley Drive, Tampa, FL 33612-6403, hereby grants:

**B. Bogus Engineers, Inc. and The CR Group, Inc.**

the authority, as agent(s) of the Department, to gain access to private lands pursuant to Section 337.274, Florida Statutes, which authorized the Department and its agents to enter private property to conduct environmental assessments, appraisals, surveys, soundings, drillings and the like. Said agent is authorized to conduct work of the following nature:

**Biological Evaluations, Contamination Assessments, Engineering Evaluations, Archaeological/ Historical Structures Surveys**

in conjunction with the following STATE TRANSPORTATION PROJECT:

PROJECT NAME: District Wide Project Development and Environment Consultant

STATE PROJECT NO: 99007-1594

WPI NO: 7110075

THIS AGENCY IS GRANTED THIS \_\_\_\_\_ day of \_\_\_\_\_, 1994, and shall be effective until said project is completed.

BY:

\_\_\_\_\_  
William H. McDaniel, Jr., P.E.  
District Secretary  
District Seven  
Florida Department of Transportation

ATTEST:

\_\_\_\_\_  
Secretary

**EXHIBIT 4.2**  
**EXAMPLE COMPLETED SHOVEL TEST FORM**

## SHOVEL TEST FORM

Project: U.S. 100 Date: 1/1/97

Names: Ima Digger and T. Pitts Team: ODD/EVEN

Township: 17S Range: 25E Section: 3 A/S # 17 Quad: Zolpho

Probability Zone High      Med      Low      Judgmental     

TP # 17 Productive/Sterile 10 m N S E W of TP 15  
0 m N S T E W of P 0

Stratigraphy: Vegetation, Artifacts, Topography  
Describe disturbance

|           |   |            |                              |  |
|-----------|---|------------|------------------------------|--|
| <u>0</u>  | - | <u>10</u>  | <u>black sandy soil</u>      |  |
| <u>10</u> | - | <u>35</u>  | <u>brown sandy soil</u>      |  |
| <u>35</u> | - | <u>80</u>  | <u>tan, hard-packed soil</u> | <u>Oaks, grasses, on top of hill; no</u> |
| <u>80</u> | - | <u>100</u> | <u>brown, clay-like soil</u> | <u>disturbance observed</u>              |
|           | - |            |                              |  |

Township: S Range: S Section: S A/S # S Quad: Zolpho

Probability Zone High      Med      Low      Judgmental     

TP # 19 Productive/Sterile 20 m N S E W of TP 17  
15 m N S E W of TP pond

Stratigraphy: Vegetation, Artifacts, Topography  
Describe disturbance

|            |   |            |                             |  |
|------------|---|------------|-----------------------------|--|
| <u>0</u>   | - | <u>10</u>  | <u>dist. gray sand</u>      |  |
| <u>10</u>  | - | <u>40</u>  | <u>tan (not dist.) sand</u> | <u>3 flakes (small) 0-10, disturbed soil</u> |
| <u>40</u>  | - | <u>100</u> | <u>white sand</u>           | <u>25 flakes 10-40, not disturbed</u>        |
| <u>100</u> | - | <u>110</u> | <u>white clay</u>           | <u>1 projectile point @ 60 cmbs</u>          |
|            | - |            |                             | <u>Pine &amp; oak on hill above marsh</u>    |

Township: 18S Range: 21E Section: 9 A/S # 18 Quad: Zolpho

Probability Zone High      Med      Low      Judgmental     

TP # 21 Productive/Sterile 100 m N S E W of TP 19  
50 m N S E W of TP Main Street

Stratigraphy: Vegetation, Artifacts, Topography  
Describe disturbance

|           |   |            |                            |   |
|-----------|---|------------|----------------------------|---|
| <u>0</u>  | - | <u>50</u>  | <u>dist. sand and fill</u> |   |
| <u>50</u> | - | <u>100</u> | <u>tan sandy soil</u>      | <u>Grass and ornamental shrubs; top 50 cm</u>   |
|           | - |            |                            | <u>dist. by modern commercial buildings and</u> |
|           | - |            |                            | <u>road construction</u>                        |

Township: 18S Range: 21E Section: 10 A/S # 19 Quad: Sanford

Probability Zone High      Med      Low      Judgmental     

TP # 23 Productive/Sterile 10 m N S E W of TP 15  
0 m N S T E W of P 0

Stratigraphy: Vegetation, Artifacts, Topography  
Describe disturbance

|          |   |            |                                       |   |
|----------|---|------------|---------------------------------------|---|
| <u>0</u> | - | <u>100</u> | <u>gray sand with chunks of brick</u> |   |
|          | - |            |                                       | <u>Disturbed soil, sand with bricks, 3 flakes</u> |
|          | - |            |                                       | <u>and 3 sherds found @ 25 cmbs. Punk</u>         |
|          | - |            |                                       | <u>trees and Brazilian Pepper trees. Area is</u>  |
|          | - |            |                                       | <u>very disturbed by bulldozing.</u>              |

**EXHIBIT 4.3**  
**EXAMPLE DAILY PROJECT SUMMARY SHEET**

**DAILY PROJECT SUMMARY SHEET**

Project Name: \_\_\_\_\_ County: \_\_\_\_\_

Date: \_\_\_\_\_ Crew Chief: \_\_\_\_\_

Crews (designation/members): \_\_\_\_\_

---

Name:

Results:

LPZ \_\_\_\_\_  
MPZ \_\_\_\_\_  
HPZ \_\_\_\_\_  
JUD \_\_\_\_\_  
BJUD \_\_\_\_\_  
WRA \_\_\_\_\_

Number of Test Units Dug \_\_\_\_\_

**EXHIBIT 4.4**  
**EXAMPLE FS LOG SHEET**



**EXHIBIT 4.5**  
**EXAMPLE COMPLETED FMSF FORM FOR**  
**ARCHAEOLOGICAL SITE**

*The following Florida Master Site File Form was created using SmartForm software. This software was developed by the DHR for use by consultants and is recommended for completing forms to be submitted to the Florida Master Site File Office. Some projects, specifically grant projects funded in part by the state, may require the use of the SmartForm Program.*

## ARCHAEOLOGICAL SITE FORM

Site #8: HI05119

First site form recorded for this Site? Original documentation, site not recorded at FSF

Identifying code (field date, if none then form date): 199204

Recorder #: \*\* blank \*\*

Field date: 04/01/1992

Form date: 05/01/1992

Site name(s): HELENE

Alternate names: \*\* blank \*\*

Project name: I-4 IMPROVEMENTS, 50TH STREET TO POLK CO.

Mult. list #8: \*\* blank \*\*

Survey #: \*\* blank \*\*

National Register category: Site, such as battlefield, park, archaeological

Ownership: Public-state

USGS map name & year of publication/revision: PLANT CITY EAST/\*\*

County: HILLSBOROUGH

Township/Range/Section/Qtr: 28 South/22 East/23/Northwestern quarter of square section or 1/4 sect

Irregular section: NO

Landgrant: \*\* blank \*\*

Tax parcel number: \*\* blank \*\*

City: PLANT CITY

In current city limits? Definitely outside city limits

UTM: Zone/Easting/Northing: 17/393450/3101600

Address/Vicinity of/Route to: ALONG I-4, SITE IS ON SOUTH RIGHT-OF WAY 520M EAST OF KEEN ROAD.

Name of public tract: \*\* blank \*\*

### TYPE OF SITE

Type of site: Land-terrestrial; Unspecified by the recorder (FMSF use only); Lithic scatter/quarry (prehistoric: no ceramics)

Other site type: \*\* blank \*\*

### HISTORIC CONTEXTS

Historic contexts: Prehistoric lacking pottery

Other cultures: \*\* blank \*\*

### SURVEYOR'S EVALUATION OF SITE

Potentially eligible for local designation? Ineligible for a local register of important sites

Name of Local Register eligible for: \*\* blank \*\*

Individually eligible for National Register? Ineligible for NR, considered independently

Potential contributor to NR District? Ineligible as contributor to potential NR district

Explanation of evaluation: LIMITED ARTIFACT ASSEMBLAGE. SITE IS NOT CONSIDERED AMONG THE BEST EXAMPLES OF ITS TYPE FOR THE REGION.

Recommendations for site: NO FURTHER WORK RECOMMENDED FOR THE PORTION OF THIS SITE EXPRESSED WITHIN THE PROPOSED RIGHT-OF-WAY BOUNDARIES.

### FIELD METHODS

Methods for site detection: Exposed ground inspection; Screened shovel: smallest nested mesh size 1/4 in

Methods for site boundaries: Exposed ground inspection; Screened shovel: smallest nested mesh size 1/4 in

No,size,depth,pattern of tests; screen: 9 50CM ROUND SHOVEL TESTS; .64CM, 1/4"

### SITE DESCRIPTION

Extent size (sq m): -1

Depth/stratigraphy of cultural deposit: 30-40CMBS 0-20 MOTTLED GRAYISH BROWN SAND, 20-100 TAN SAND

Temporal interpretation -- Components: Probable single component

Describe each occupation: \*\* blank \*\*

Site integrity -- Overall disturbance: Substantial

**Disturbances/threats/protectioins:** \*\* blank \*\*

**Area collected (sq m):** -1

**Surface collection -- # units:** -1

**Excavation -- # noncontiguous areas:** -1

## ARTIFACTS

**Total # artifacts:** 2

**Count or estimate?** Accurate count, not an estimate

**Surface artifacts #:** \*\* blank \*\*

**Subsurface artifacts #:** 2

**COLLECTION STRATEGY** Unselective: ALL artifacts observed were collected; General: artifacts were NOT separated by subareas

**ARTIFACTS: Category/Disposition** Lithics/\*\*

**Other (Strategy, Categories)** \*\* blank \*\*

**DIAGNOSTICS: Type/Number** WASTE FLAKES/ 2/\*\*

## ENVIRONMENT

**Nearest fresh water type:** Other, please describe or elaborate

**Nearest fresh water name:** UNIDENTIFIED SLOUGH

**Nearest fresh water distance (m):** 100

**Natural community:** Terrestrial: xeric uplands: scrubby flatwoods

**Local vegetation:** BLUEJACK AND TURKEY OAKS, ROSEMARY

**Topography:** Other, please describe or elaborate

**Other, uncoded topographic setting:** FLATLAND

**Minimum elevation (m):** \*\* blank \*\*

**Maximum elevation (m):** \*\* blank \*\*

**Present land use:** I-4 RIGHT-OF-WAY

**SCS soil series:** BLANTON FINE SAND, LEVEL PHASE

**Soil association:** BLANTON-LAKELAND-EUSTIS

## FURTHER INFORMATION

**Informant(s) name:** \*\* blank \*\*

**Informant address/phone:** \*\* blank \*\*

**REPOSITORIES: Collection/Housed/ACC#/Describe** All documents and collections at same repository/\*\*/FDOT, TALLAHASSEE: THE CR GROUP, INC./\*\*

**RECORDER Name:** IMA DIGGER

**Recorder address/phone:** THE CR GROUP, INC. P.O. BOX 123, SUNSHINE, FL 30123/ 841-555-9876

**Affiliation:** \*\* blank \*\*

**Other affiliation:** \*\* blank \*\*

**Is text-only supplement file attached (Surveyor-only)?** YES, text-only supplement file is on the disk.

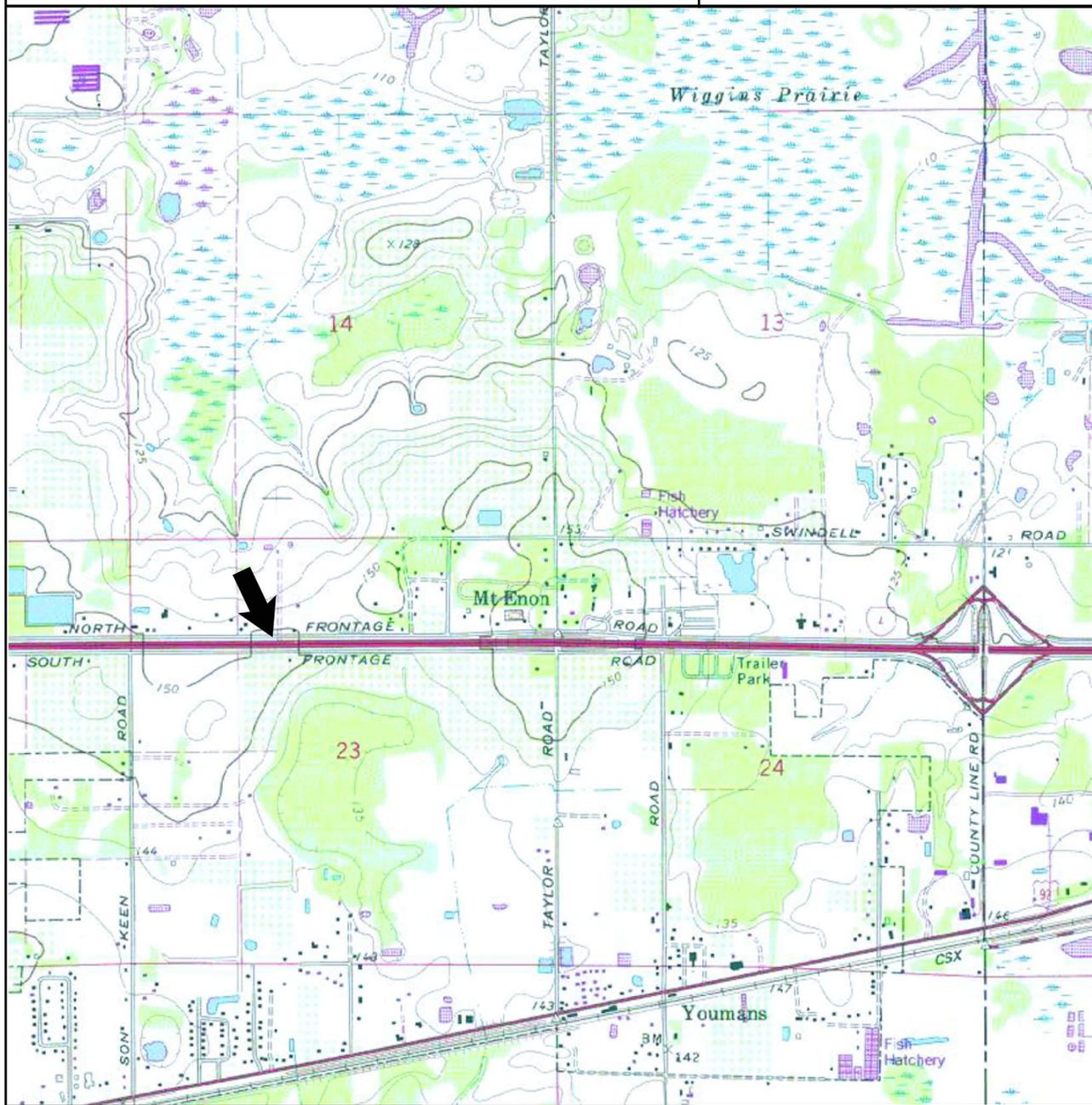
ARCHAEOLOGICAL SITE FORM

U.S. GEOLOGICAL SURVEY MAP

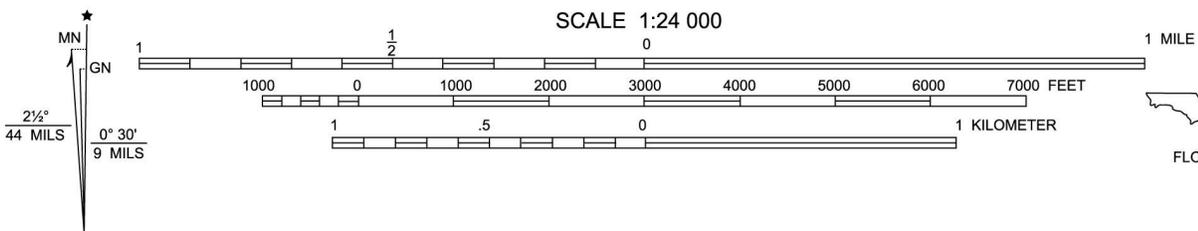
FMSF NO. 8HI5119

LOCATION USGS Plant City East, Fla.

1975, PR 1987



SCALE 1:24 000



**EXHIBIT 4.6**  
**EXAMPLE COMPLETED FMSF FORM FOR**  
**HISTORIC STRUCTURE**

*The following Florida Master Site File Form was created using SmartForm software. This software was developed by the DHR for use by consultants and is recommended for completing forms to be submitted to the Florida Master Site File Office. Some projects, specifically grant projects funded in part by the state, may require the use of the SmartForm Program.*

## HISTORICAL STRUCTURE FORM

Site #8: PO03993

First site form recorded for this site? Original documentation, site not recorded at FSF

Identifying code (field date): 199401

Recorder #: 01

Field Date: 01/04/1994

Form Date: 02/25/1994

Site name(s): 836 WEST MAIN STREET

[Other name(s)]: \*\* blank \*\*

Mult. list #: \*\* blank \*\*

Survey names: CRAS OF SEGMENT OF US 92, POLK COUNTY

Survey #: \*\* blank \*\*

National register category: Building(s)

## LOCATION & IDENTIFICATION

Street Number/Direction/Name/Type/Suffix Direction: 836/West/MAIN/Street/\*\*

Cross streets nearest/between: BTWN S LINCOLN AVE & LAKE BEULAH DR

City/town: LAKELAND

In current city limits? Definitely within the limits of city

County: POLK

Tax parcel #: 1328223064500003052

Subdivision name: LAKE BEULAH ADDITION

Block: 3

Lot no.: 5-2

Ownership type: Private-individual

Name of pubtract (e.g., park): \*\* blank \*\*

Route to (or vicinity of): \*\* blank \*\*

## MAPPING

USGS map name/year of publication or revision: LAKELAND/1975

Township/Range/Section/Qtr: 28 South/23 East/13/Southwestern quarter of square section or 1/4 sect

Irregular section: NO

Landgrant: \*\* blank \*\*

UTM Zone/Easting/Northing: 17/404850/3102100

Plat or other map (map's name, location): LAKE BELUAH ADDITION PB 1B/PG 46

## DESCRIPTION

Style: Masonry Vernacular: Brick, block, stone; any date

[Other style]: \*\* blank \*\*

Exterior plan: Rectangular

[Other exterior plan]: \*\* blank \*\*

No. stories: 1

Structural system(s): Masonry: don't use; specify brick, block, or stone

[Other structural system(s)]: \*\* blank \*\*

Foundation types: Slab

[Other foundation type]: \*\* blank \*\*

Foundation materials: Poured concrete footing

[Other foundation materials]: \*\* blank \*\*

Exterior fabrics: Brick; Stucco

[Other exterior fabrics] \*\* blank \*\*

Roof types: Hip

[Other roof types]: \*\* blank \*\*

Roof materials: Composition shingles

[Other roof materials]: \*\* blank \*\*

Roof secondary structures (dormers etc): \*\* blank \*\*

[Other roof secondary structures]: \*\* blank \*\*

Chimney no.: 1

**Chimney materials:** Brick  
**[Other chimney materials]:** \*\* blank \*\*  
**Chimney locations:** SOUTH WALL, INTERIOR  
**Windows (types, materials, etc.):** FIXED GLASS, METAL FRAME, INDEPENDENT  
**Main entrance (stylistic details):** CONTEMP. WOOD DOOR W/TRANSOM ACCESSED VIA PORTE-COCHERE  
**# of open porches:** \*\* blank \*\*  
**# of closed porches:** \*\* blank \*\*  
**# of incised porches:** 1  
**Porch locations:** N/ PORTE-COCHERE  
**Porch roof types:** \*\* blank \*\*  
**Exterior ornament:** METAL POST/ BRACKETS FORMED FROM CHANNELS & ANGLES/ BRICK HALF-WALL  
**Interior plan:** Unknown Interior Plan  
**[Other interior plan]:** \*\* blank \*\*  
**Condition:** Excellent  
**Narrative description:** THE ORIGINAL RECTANGULAR STRUCTURE WAS MODIFIED CA. 1989 WITH THE USE OF FIXED GLASS, METAL FRAMED REPLACEMENT WINDOWS, A CONTEMPORARY WOOD DOOR, AND METAL SOFFIT AND FASCIA.  
**Commercial surroundings (proportion):** Most cultural resources show quality (>50%-<90%)  
**Residential surroundings (proportion):** No/few cultural resources show quality (<10%)  
**Institutional surroundings (proportion):** No/few cultural resources show quality (<10%)  
**Undeveloped surroundings (proportion):** No/few cultural resources show quality (<10%)  
**Ancillary features (no., outbuildings, etc.):** CONTEMPORARY METAL BUILDING TO SOUTH  
**Artifacts or other remains:** NONE OBSERVED  
**FMSF Archaeological form completed?** No: Archaeological Form not done

## HISTORY

**Construction year (e.g. C1933, 1936+, 1936-):** 1927  
**Architect (last name first):** UNKNOWN  
**Builder (last name first):** UNKNOWN  
**Change status/year changed/date noted/nature:** Altered not according to the Secretary's standards/C1989/\*\*/WINDOWS REPLACED/ METAL SOFFITS/ FASCIA  
**Original, intermediate, present uses/year started/year ended:** Service station/1927/\*\*; Service station/\*\*/\*\*; Restaurant/\*\*/\*\*  
**[Other uses]:** \*\* blank \*\*  
**Ownership history (esp. original owners):** MICHAEL L. SMITH (1989)

## RESEARCH METHODS

**Research methods:** Local tax records for property recd-deeds; Libraries searched locally-county histories, etc.; Sanborn maps for this property consulted; Plat or subdivision map for the property; Public Land Survey recds at DNR (Knetsch&Smith 92)  
**[Other research methods]:** \*\* blank \*\*

## SURVEYOR'S EVALUATION OF SITE

**Potentially elig. for local designation?** Ineligible for a local register of important sites  
**Local register eligible for:** \*\* blank \*\*  
**Individually elig. for Nat. Register?** Ineligible for NR, considered independently  
**Potential contributor to NR district?** Ineligible as contributor to potential NR district  
**Area(s) of historical significance:** Community planning & development  
**[Other historical associations]:** \*\* blank \*\*  
**Explanation of evaluation:** THIS MODIFIED GAS STATION, ALTHOUGH DISPLAYING INTERESTING DETAIL, IS NOT ARCHITECTURALLY UNIQUE. FURTHERMORE, AVAILABLE DATA HAS NOT SHOWN IT TO BE HISTORICALLY SIGNIFICANT. IT THEREFORE DOES NOT APPEAR TO MEET NRHP ELIGIBLE CRITERIA.

## DOCUMENTATION (PHOTOS, PLANS, ARTIFACTS)

**Repositories:** Collection/Housed/ACC#/Describe All documents and collections at same repository/Other, please describe or elaborate/NEGATIVES: ROLL 1:1-3,12/THE CR GROUP, INC.

## RECORDER

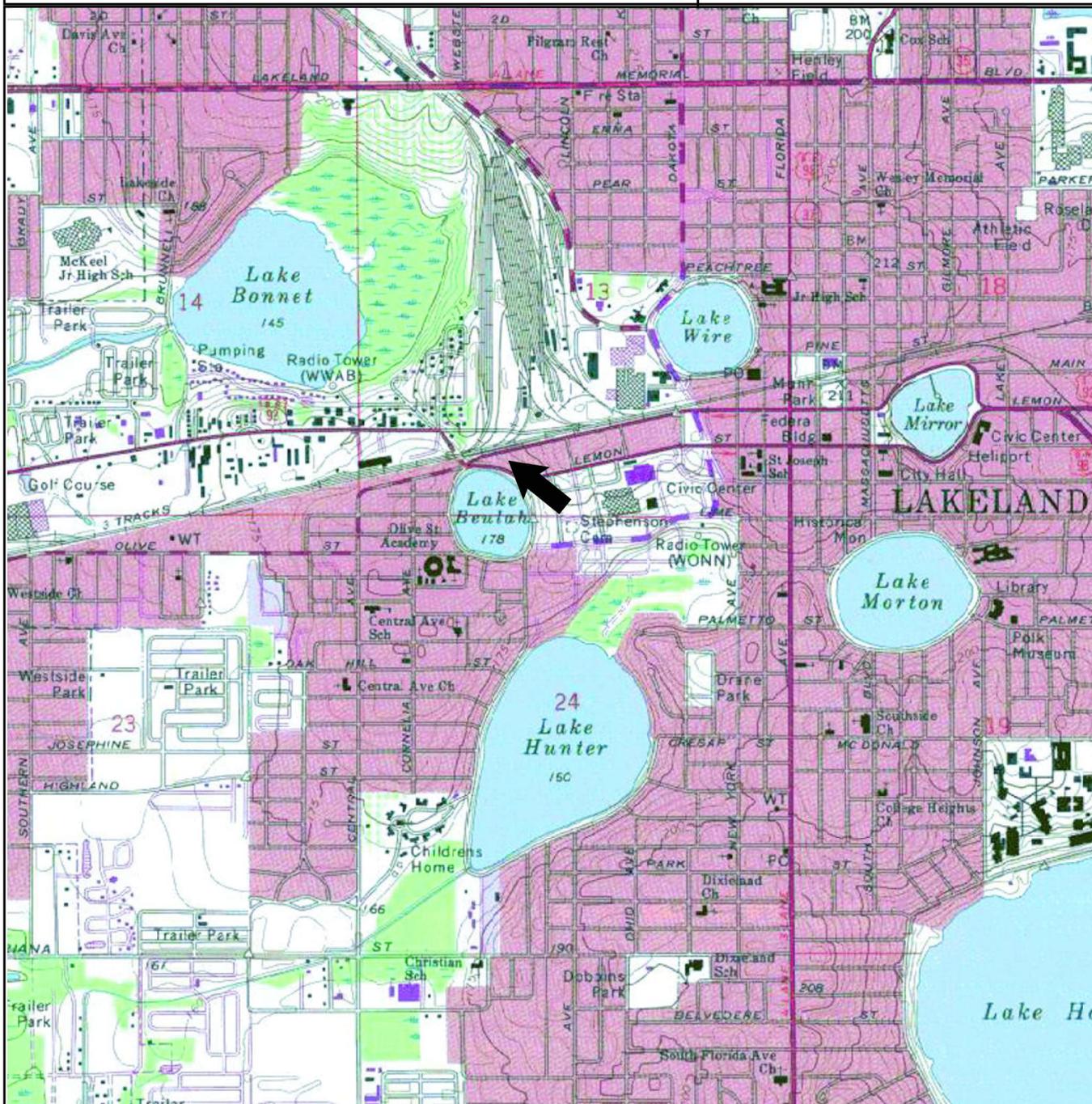
**Recorder name (last name first):** DOGTROT, HARVEY  
**Recorder address and phone:** P.O. BOX 123, SUNSHINE, FL 30123/ 841-555-9876  
**Recorder affiliation:** Other, please describe or elaborate  
**[Other affiliation]:** THE CR GROUP, INC.  
**Is text-only supplement file attached?** YES, text-only supplement file is on the disk.

HISTORICAL STRUCTURE FORM

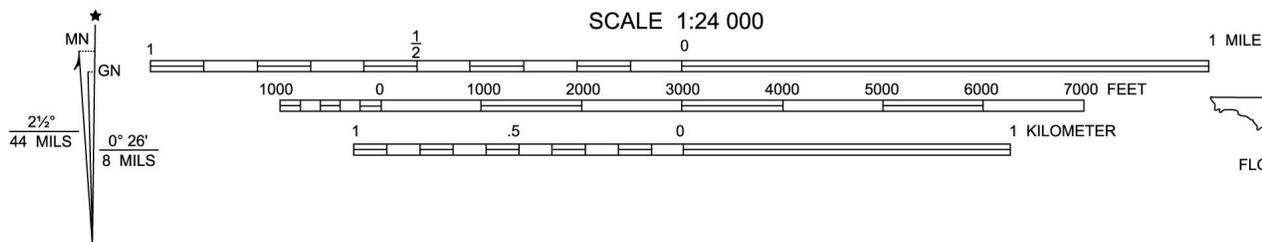
U.S. GEOLOGICAL SURVEY MAP

FMSF NO. 8PO3993

LOCATION USGS Lakeland, Fla. 1973



SCALE 1:24 000



# HISTORICAL STRUCTURE FORM

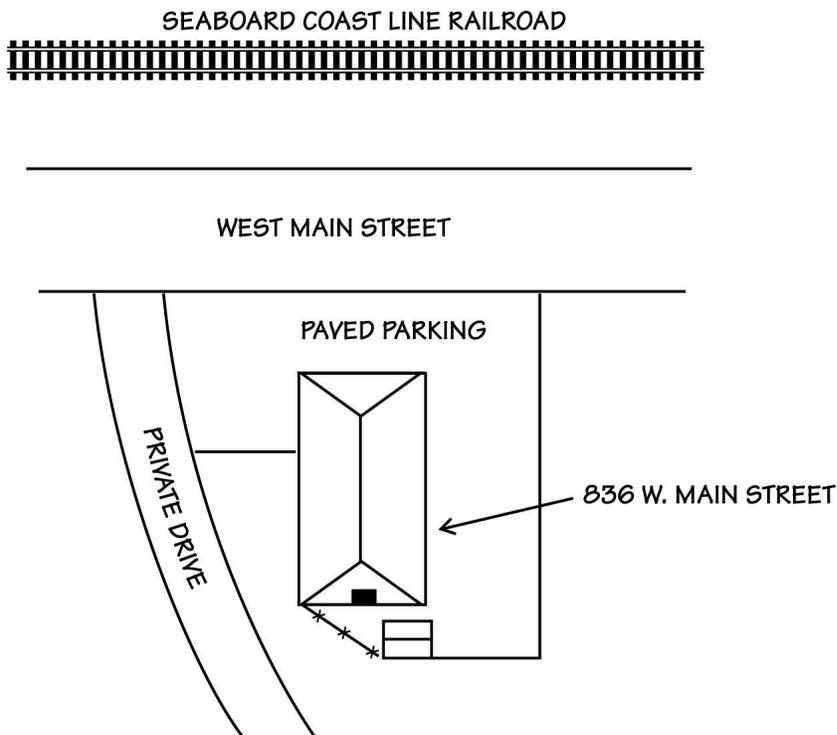
PHOTOGRAPH

FMSF NO. 8PO3993

LOCATION USGS Lakeland, Fla. 1973



STREET OR PLAT MAP



**EXHIBIT 4.7**  
**EXAMPLE COMPLETED PHOTO LOG SHEET**

|                                      |                  |                                |
|--------------------------------------|------------------|--------------------------------|
| <b>DATE:</b> 1/4/94                  | <b>PHOTO LOG</b> | <b>ROLL TYPE:</b> B/W #: 2     |
| <b>PROJECT NAME:</b> US 92, Lakeland |                  | <b>PHOTOGRAPHER:</b> Dawn Wise |

| FRAME # | FIELD # | ELEV. | SUBJECT                   |
|---------|---------|-------|---------------------------|
| 1       | 8       | NE    | 160026 Bridge             |
| 2       |         | SE    |                           |
| 3       |         | SW    | Corner Detail             |
| 4       | 9       | NE    | 3010 New Tampa Highway    |
| 5       |         | NW    |                           |
| 6       | 10      | NW    | 3010 New Tampa Highway    |
| 7       |         | NE    |                           |
| 8       | 11      | SW    | 2965 New Tampa Highway    |
| 9       |         | S     |                           |
| 10      | 12      | NE    | 812 West Main Street      |
| 11      |         | SE    |                           |
| 12      | 13      | NE    | 517 West Main Street      |
| 13      | 14      | E     | 1043 New Tampa Highway    |
| 14      |         | SE    |                           |
| 15      |         | SW    |                           |
| 16      | 15      | S     | 1049 New Tampa Highway    |
| 17      |         | SE    |                           |
| 18      | 16      | SE    | 1061 New Tampa Highway    |
| 19      |         | SW    |                           |
| 20      | 17      | SE    | 1063 New Tampa Highway    |
| 21      |         | SE    |                           |
| 22      |         | SW    |                           |
| 23      | 18      | SE    | 1065 George Jenkins Blvd. |
| 24      |         | SW    |                           |
| 25      |         |       |                           |
| 26      |         |       |                           |
| 27      |         |       |                           |
| 28      |         |       |                           |
| 29      |         |       |                           |
| 30      |         |       |                           |
| 31      |         |       |                           |
| 32      |         |       |                           |
| 33      |         |       |                           |
| 34      |         |       |                           |
| 35      |         |       |                           |
| 36      |         |       |                           |

**EXHIBIT 4.8**  
**EXAMPLE COMPLETED FMSF FORM FOR**  
**HISTORIC BRIDGE**

*The following Florida Master Site File Form was created using SmartForm software. This software was developed by the DHR for use by consultants and is recommended for completing forms to be submitted to the Florida Master Site File Office. Some projects, specifically grant projects funded in part by the state, may require the use of the SmartForm Program.*

## HISTORICAL BRIDGE FORM

Electronic Form Used: B200

Site #8: PO04012

First site form recorded for this site? Original documentation, site not recorded at FSF

Identifying code (field date): 199401

Recorder #: 8

Field Date: 01/04/1994

Form Date: 03/08/1994

Bridge Name: 160026

Alternate Names: \*\* blank \*\*

Multiple Listing #: \*\* blank \*\*

Survey name (FMSF only): CRAS OF SEGMENT OF US 92, POLK COUNTY

Survey #: \*\* blank \*\*

FDOT Bridge Number: 160026

Route Carried/Feature Crossed: WINSTON CREEK

Nearest City/Town Within 3 Miles: LAKELAND

Within city limits? Definitely outside city limits

County: LEE

Ownership type: Public-state

Name of public tract if applicable (e.g., Angle Park): \*\* blank \*\*

### MAPPING:

USGS map name & year of publication/revision: PLANT CITY EAST/1987

Township/Range/Section/Qtr: 28 South/23 East/21/Northeastern quarter of square section or 1/4 sect

Irregular Section: NO

Landgrant: \*\* blank \*\*

### DESCRIPTION

Overall Bridge Design: Slab

[Other Bridge Design]: \*\* blank \*\*

Condition: Good

Style and Decorative Details: CONCRETE POST & RAIL PARAPET

Number of spans: 2

Total length of bridge (ft): 45

Number of main span(s): 2

Total length of main span(s) (ft): 23

Total width of main span(s) (ft): 25

Total roadway width of main span(s) (ft): 30

Main span designs: Slab

Main span material(s): \*\* blank \*\*

[Other main span design materials]: \*\* blank \*\*

Total number of approach span(s): \*\* blank \*\*

Total length of approach span(s) (ft): \*\* blank \*\*

Total width of approach span(s) (ft): \*\* blank \*\*

Total roadway width of approach span(s) (ft): \*\* blank \*\*

Approach span design(s): \*\* blank \*\*

Approach span material(s): \*\* blank \*\*

[Other approach span design materials]: \*\* blank \*\*

Deck material(s): Black Top: Concrete

[Other deck materials]: \*\* blank \*\*

Abutment material(s): \*\* blank \*\*

Abutment design(s): \*\* blank \*\*

**Pier material(s):** \*\* blank \*\*

**Pier description:** \*\* blank \*\*

**Alterations (Dates and Description):** 1945, UNKNOWN; CA.1990, INSTALLED ADDITIONAL CONTEMPORARY CONCRETE PARAPETS

**Tender station description:** \*\* blank \*\*

**Prior fords, ferries or bridges at this location:** UNKNOWN

**Year built:** 1926

**Still in use?** Bridge is currently used as original design

**Restricted use:** \*\* blank \*\*

**Bridge uses with dates, including original and current** \*\* blank \*\*

**Ownership history:** UNKNOWN

**Bridge designers/engineers:** UNKNOWN

**Bridge builders/contractors:** UNKNOWN

**Text of plaque or inscription:** \*\* blank \*\*

**Narrative History:** \*\* blank \*\*

**Research Methods:** Florida Site File search for this property; FDOT database search; HABS/HAER search for bridges

**[Other research methods]:** \*\* blank \*\*

### SURVEYOR'S EVALUATION OF BRIDGE

**Potentially elig. for local designation?** Ineligible for a local register of important sites

**Local register eligible for:** \*\* blank \*\*

**Individually elig. for Nat. Regsiter?** Ineligible for NR, considered independently

**Potential contributor to NR district?** Ineligible as contributor to potential NR district

**Area(s) of historical significance?** Transportation; Community planning & development

**[Other historical associations]:** \*\* blank \*\*

**Explanation of evaluation:** OF A COMMON TYPE (CONCRETE SLAB) FOR THE COUNTY, WITH NO KNOWN IMPORTANT HISTORICAL ASSOCIATIONS.

### DOCUMENTATION (PHOTOS, PLANS, ARTIFACTS)

**Repositories: Collection/Housed/ACC#/Describe** Photographs/Negatives at repository. describe/Other, please describe or elaborate/ROLL 1:29-36, 2:1-3/THE CR GROUP, INC.

### RECORDER

**Recorder name (last name first):** DOGTROT, HARVEY

**Recorder address/phone:** P.O. BOX 123, SUNSHINE, FL 30123/ 841-555-9876

**Recorder affiliation:** Other, please describe or elaborate

**[Other affiliation]:** THE CR GROUP, INC.

**Is the text-only supplement file attached?** YES, text-only supplement file is on the disk.

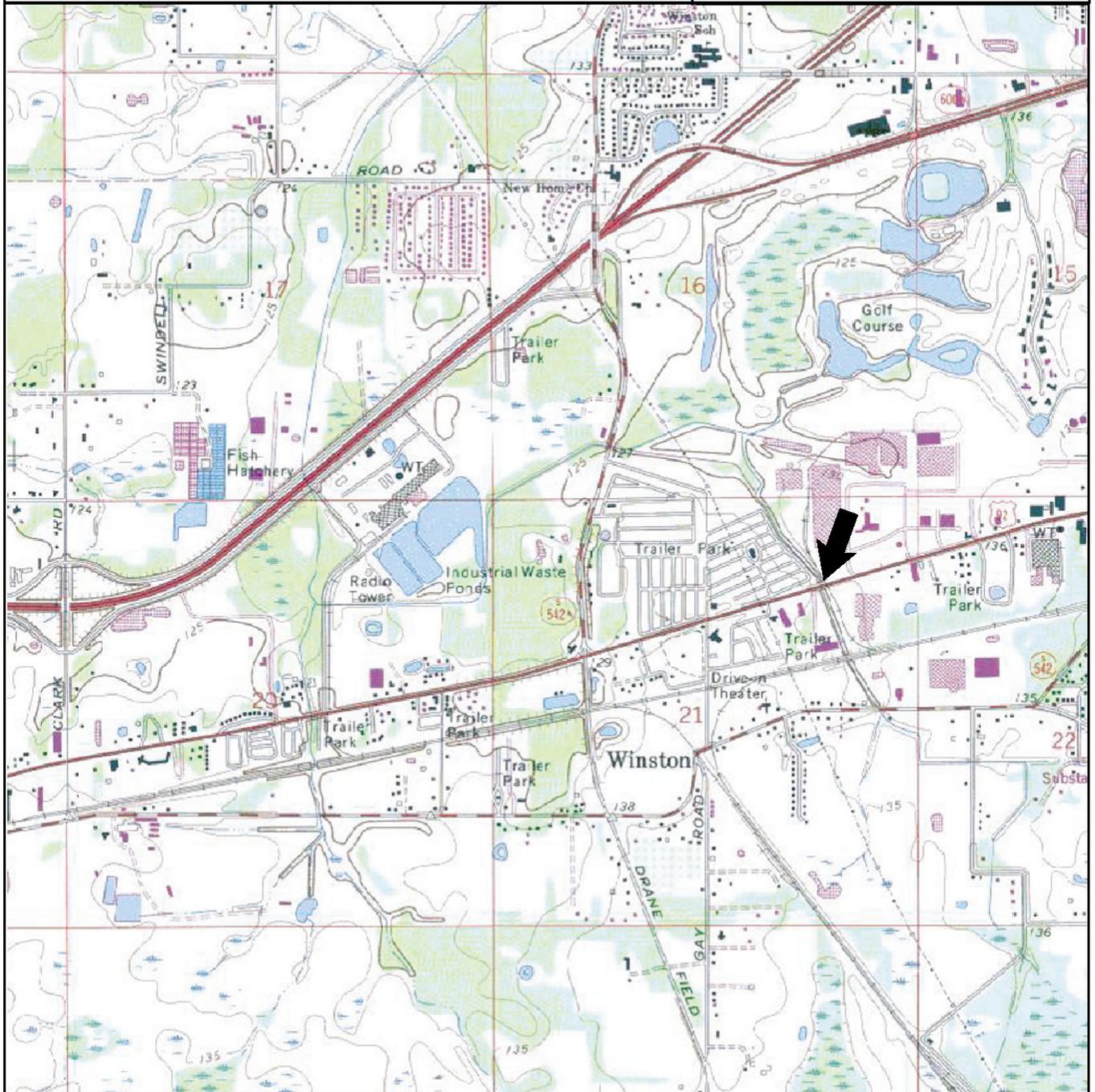
HISTORICAL BRIDGE FORM

U.S. GEOLOGICAL SURVEY MAP

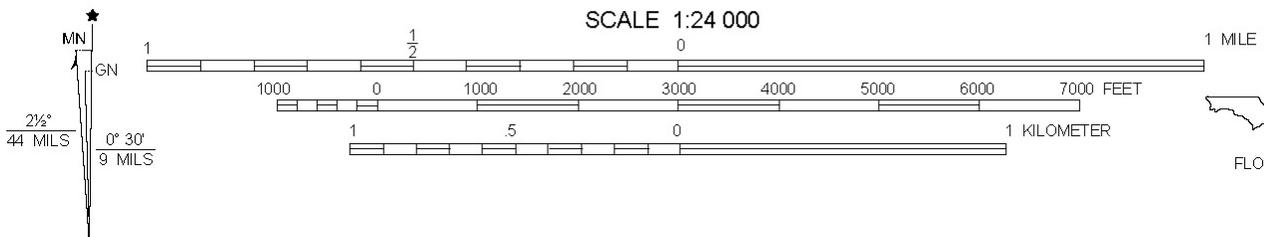
FMSF NO. 8PO4012

LOCATION USGS Plant City East, Fla.

1975, PR 1987



SCALE 1:24 000



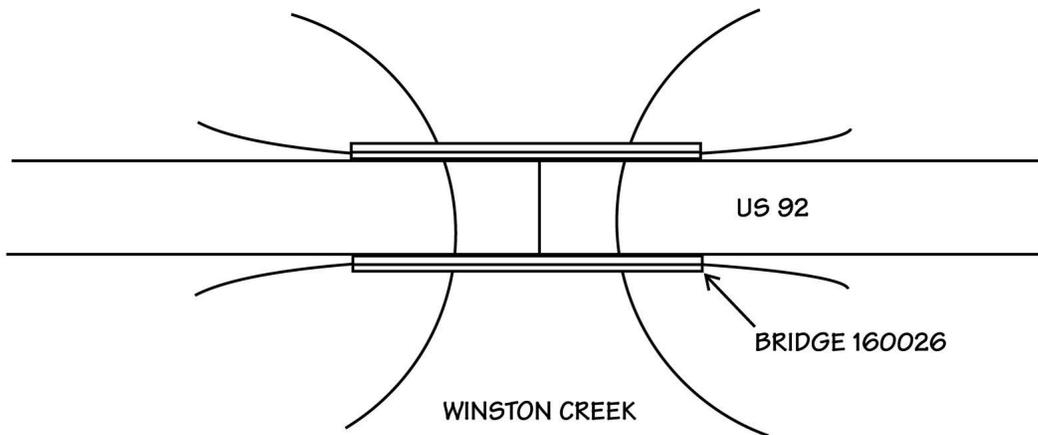
HISTORICAL BRIDGE FORM

PHOTOGRAPH

FMSF NO. 8PO4012  
LOCATION USGS Plant City East, Fla.  
1975, PR 1987



STREET MAP



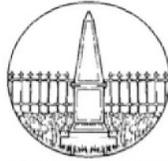
HISTORICAL BRIDGE FORM

PHOTOGRAPH

FMSF NO. 8PO4012  
LOCATION USGS Plant City East, Fla.  
1975, PR 1987



**EXHIBIT 4.9**  
**EXAMPLE OF COMPLETED FMSF FORM FOR**  
**HISTORIC CEMETERY**



# HISTORICAL CEMETERY FORM

## Florida Master Site File

Version 3.0: 8/98

Site #8 WL856

Recorder # \_\_\_\_\_

Field Date 3/92

Form Date 3/92

- Original
- Update (give site # at right)

\*Consult Guide to the Historical Cemetery Form for detailed instructions

### LOCATION & IDENTIFICATION

Cemetery Name(s) Clear Springs Cemetery Multiple Listing [DHR only]

Project Name \_\_\_\_\_ FMSF Survey #

Address/Vicinity of/Route to West side of Highway 85 at Clear Springs community

Nearest City/Town (within three miles) Clear Springs In Current City Limits?  yes  no  unknown

County Walton Tax Parcel #(s) (optional) \_\_\_\_\_

Ownership Type (check exactly one)  private-profit  private-nonprofit  private-unspecified  city  county  
 state  federal  foreign  Native American  unknown

Public Tract Enclosing Cem., if any (e.g. park) \_\_\_\_\_

### MAPPING

USGS 7.5' Map Name and Date USGS Paxton, FL 1973 PR 1987

Township 6N Range 21W Section 33 ¼ section  NW  SW  SE  NE  Irregular sec.-name: \_\_\_\_\_

Township \_\_\_\_\_ Range \_\_\_\_\_ Section \_\_\_\_\_ ¼ section  NW  SW  SE  NE  Irregular sec.-name: \_\_\_\_\_

Landgrant: \_\_\_\_\_ Plat or Other Map \_\_\_\_\_

### HISTORY

Year Cemetery Established: \_\_\_\_\_ Estimated Year \_\_\_\_\_ Ownership History (especially original owners) \_\_\_\_\_

Year Burials Ceased, if applicable \_\_\_\_\_ Reason(s) Burials Ceased \_\_\_\_\_

Range of Death Dates Earliest 1913 Most Recent 1992 (O)bserved or (R)esearched? \_\_\_\_\_

Acreage Expansions/Dates: \_\_\_\_\_

List People Important in Local, State, or National History Buried in Cemetery \_\_\_\_\_

Previous Attempts at Repair, Cleaning, or Restoration? \_\_\_\_\_

### GENERAL DESCRIPTION OF CEMETERY

Type (Check all that apply)  community  company town  epidemic  family  fraternal order  
 memorial park  military(not national)  municipal  national  potter's field  prison  
 religious  "Rural Movement"  other (explain): \_\_\_\_\_

Ethnic Group(s) Interred (Check all that apply)  White non-Hispanic  Hispanic  Asian  Caribbean  
 African American  American Indian-tribe: \_\_\_\_\_  other (explain): \_\_\_\_\_

Current Status:  used for burials  maintained but not used  abandoned Size: \_\_\_\_\_ ft X \_\_\_\_\_ ft or ±3.5 acres

Total # Graves: 350 Does Total # Include Unmarked Graves?:  yes  no

Evidence/# of Unmarked Graves? \_\_\_\_\_

Condition:  well maintained  some areas maintained, others neglected  poorly maintained  
 not maintained, but can identify  not maintained, hard to identify  not identifiable but known to exist (explain): \_\_\_\_\_

Cemetery Boundary Type:  fence  wall  hedge  other (explain): \_\_\_\_\_

Describe Cem. Boundary (e.g. "cast iron fence", stone or brick wall, etc.) \_\_\_\_\_

Historical Vegetation (trees, shrubs, flowers) \_\_\_\_\_

Grave Groupings (Check all that apply)  family  fraternal order  military  religious  ethnic heritage  other (explain): \_\_\_\_\_

Groupings Indicated By (Check all that apply)  curbing  fence  hedge  wall  other (explain): \_\_\_\_\_

Public Access  Unlimited  Restricted: How? \_\_\_\_\_

Surroundings (use (N)one, (S)ome, (M)ost, (A)ll or nearly (A)ll) \_\_\_\_\_ Commercial \_\_\_\_\_ Residential \_\_\_\_\_ Institutional  Undeveloped

Threats (Check all that apply)  abandonment  agriculture  desecration  public development  private development  
 mining or timbering  other (explain): \_\_\_\_\_

Associated Historical Properties/Archaeological (non-cemetery) Remains \_\_\_\_\_

Check if Historical Structure Form completed

Check if Archaeological Site Form completed

# HISTORICAL CEMETERY FORM

*\*Consult Guide to the Historical Cemetery Form for detailed instructions*

## GRAVES

If question requests N/S/M/A, estimate proportions by using a letter as follows: (N)one/Very Few, (S)ome, (M)ost, (A)ll/Nearly (A)ll.

Orientation (N/S/M/A) (complete all that apply)  East/West  North/South  Other: (explain): \_\_\_\_\_  
Marked Graves (N/S/M/A) (complete all that apply)  Headstones  Marked with objects or plants (no headstone on grave)  
 Graves mounded  Graves depressed

If Other Method(s) of Marking Graves Used, List and Give N/S/M/A \_\_\_\_\_

Marker Materials (Check all that apply)  marble  concrete/cement  fieldstone  granite  wrought iron  
 cast iron  white bronze/zinc  sandstone  slate  wood  other (explain below): \_\_\_\_\_

Describe Grave Articles Found in Cemetery \_\_\_\_\_  
\_\_\_\_\_

Marker Conditions (N/S/M/A)  Sunken or tilted  Chipped, cracked, weathered, but standing  
 Broken or in fragments  Deliberately vandalized

Other Notable Conditions Observed and Proportions (N/S/M/A) \_\_\_\_\_

Inscriptions (N/S/M/A)  Legible inscriptions  Illegible inscriptions  No inscriptions  
Distinctive Gravemarkers, Monuments, and/or Architectural Features \_\_\_\_\_

Signatures of Stone Carvers (Specify name, town if available) No survey made for this information.

## RECORDER'S EVALUATION

Potentially Eligible for Local Designation?  yes  no  insufficient information

Name of Local Register if Eligible \_\_\_\_\_

Individually Eligible for Nat. Register?  yes  no  insufficient information

Potential Contributor to NR District?  yes  no  insufficient information

Areas of Historical Significance (See *National Register Bulletin 15*, p. 8 for categories: e.g. "architecture", "ethnic heritage", etc.): \_\_\_\_\_

Explanation of Evaluation (required; limit to three lines; attach full statement on separate sheet):  
Evidence of early burial traditions practiced throughout this area of North Florida.

## DOCUMENTATION

Research Methods (Consult Guide to the Historical Cemetery Form for detailed instructions) \_\_\_\_\_

Bibliographic References (Author, date, title, publication information. If unpublished, give FSF Manuscript Number, or location where available): \_\_\_\_\_

Local Contact: Name/Address/Phone # /Administrative Office \_\_\_\_\_

Recorder(Name/Address/Phone/Affiliation): Harvey Dogtrot/ P.O. Box 123, Sunshine, FL 30123/ 841-555-9876/ The CR Group, Inc.

Photographs: Required. Request the use of B&W prints no smaller than 3x5. Photographs would be useful to document main gate or entrance, representative general views, representative or unusual monuments or markers, and damage or neglect.

Describe and Give Location/File Nos. of Notes, Records, or Photos: The CR Group, Inc./ P92014:/ 1-20.

| DHR USE ONLY  |   | OFFICIAL EVALUATIONS |   | DHR USE ONLY |   |
|---|---|----------------------|---|--------------|---|
| NR DATE   | KEEPER-NR ELIGIBILITY*: <input type="checkbox"/> yes <input type="checkbox"/> no  | Date                 | / | /            | / |
| / /   | SHPO-NR ELIGIBILITY*: <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> potentially elig. <input type="checkbox"/> insufficient info. | Date                 | / | /            | / |
| DELIST DATE   | LOCAL DESIGNATION*:   | Date                 | / | /            | / |
| / /   | Local office _____  |                      |   |              |   |
| National Register Criteria for Evaluation <input type="checkbox"/> a <input type="checkbox"/> b <input type="checkbox"/> c <input type="checkbox"/> d |   |                      |   |              |   |

**REQUIRED: Photocopy or Orig. 7.5' Map with Boundaries in Red**

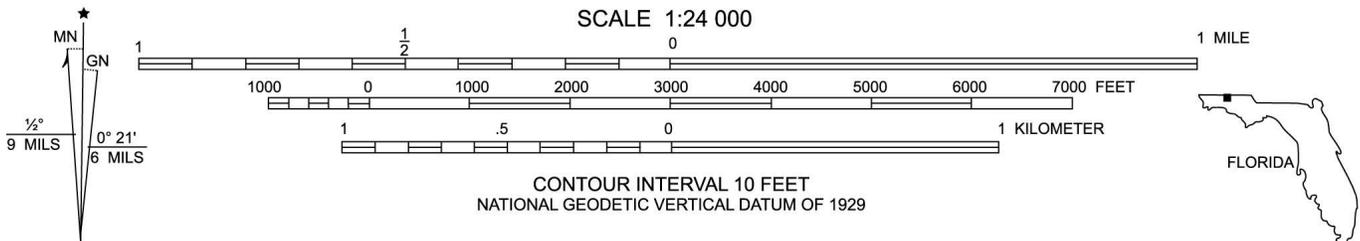
HISTORICAL CEMETERY FORM

U.S. GEOLOGICAL SURVEY MAP

FMSF NO. 8WL856

LOCATION USGS Paxton, Florida

Alabama 1975, PR 1987



HISTORICAL CEMETERY FORM

PHOTOGRAPH

FMSF NO. 8WL856

LOCATION USGS Paxton, Florida

Alabama 1975, PR 1987



PHOTOGRAPH



HISTORICAL CEMETERY FORM

PHOTOGRAPH

FMSF NO. 8WL856

LOCATION USGS Paxton, Florida

Alabama 1975, PR 1987



PHOTOGRAPH



**EXHIBIT 4.10**  
**GPS DATA COLLECTION STANDARDS**

## GPS DATA COLLECTION STANDARDS

This section establishes the minimum Global Positioning System (GPS) standards to be used during mapping activities conducted by or for the Florida Department of Transportation (FDOT). The standards refer to data collected on foot or in an automobile. As GPS technologies and capabilities develop, these standards are subject to revision. Many of these standards are based on the *National Park Service Field Data Collection with Global Positioning Systems Standard Operating Procedures and Guidelines* Manual published June 5, 2002 ([http://www.nps.gov/gis/data\\_standards/field\\_data\\_collection\\_GPS.html](http://www.nps.gov/gis/data_standards/field_data_collection_GPS.html)).

Developed by the U.S. Department of Defense, GPS is a worldwide radio navigation system based on a network of 24 operational satellites that orbit 12,000 miles above the Earth. It is necessary for a GPS receiver to receive transmissions from three or more satellites to triangulation its location.

Two levels of positioning and timing service, Standard Positioning Service (SPS) and Precise Positioning Service (PPS) are provided by GPS. PPS also allows users to track their velocity. PPS, which is highly accurate, is available for use only to the U.S. military, U.S. government, or other authorized users. PPS is transmitted on both the GPS L1 and L2 frequencies through a P(Y) broadcast code. SPS, available to all users, transmits data on the GPS L1 frequency with a coarse acquisition (C/A) broadcast code.

The accuracy of data collected may vary, depending on receiver type, field techniques, and error from a range of sources. This accuracy can often be improved through differential corrections. During real-time differential GPS (DGPS), a base station, which continuously records satellite measurements from a fixed location, transmits information to the GPS receiver. Post-processing can correct for errors in the office after the data has been captured. Post-processing may be more efficient when it is necessary to collect data quickly and when DGPS signals are not available. Real-time DGPS can result in one to five meter accuracy, while post-processing DGPS can provide sub-meter accuracy.

### GPS Receivers

GPS receivers can be of recreational grade, mapping grade, or survey grade quality. Recreational grade receivers are the least expensive, and their data is the least accurate. These receivers do not record elevation or attribute data. They also do not allow the user to control the acceptable level of error through masking of the Positional Dilution of Precision (PDOP), signal-to-noise ratio (SNR), or the Estimated Horizontal Error (EHE). Some of the recreational grade receivers can be adapted to provide real-time differential correction for errors encountered in the field, but they cannot store data for post-processing.

Mapping grade receivers are more expensive than recreational grade receivers, and they provide satisfactorily accurate data for resource mapping. These receivers can record elevation, although their vertical positional error will always be worse than their horizontal positional error due to the triangulation of the satellites. Mapping grade receivers can usually collect attribute

data via user input. Additionally, these receivers can mask the acceptable level of error and can store data for post-processing.

Survey grade receivers are very expensive and very accurate. These receivers are useful when locational measurements must be accurate to the centimeter.

### **Sources of Error**

Possible errors may come from a variety of sources. One of the better known causes of intentional error is Selective Availability (SA). SA degrades the satellite signal available to civilian users so that 95 percent of the data collected by SPS receivers are only accurate to 100 meters horizontally. SA was deactivated in May 2000, and it has not been in use since.

The next common source of error is atmospheric interference with the satellites' radio signals. Ionospheric and Tropospheric degradation can add error to the horizontal position. This can be corrected by setting a mask in the GPS receiver to not use signals from satellites that are low on the horizon. A mask can also be set to minimize error related to the PDOP, which refers to the relative positions of the satellites. Ideally, the satellites should be spread far apart, yielding a lower PDOP. The SNR setting should be high to mask out electronic noise. Other errors include ephemeris, or orbit, errors that relate to the satellites' positions, atomic clock discrepancies, and multi-path errors caused by the reflection of the satellites' radio signals off of local objects, such as buildings and trees.

### **GPS Receiver Standards**

- The GPS receiver must be of mapping-grade or better.
- The GPS receiver must produce and store data in a format compatible with the base station data used to perform the post-processing differential corrections or have the capability to receive real-time corrections from a base station that is less than 150 miles away. Differential corrections must be performed.
- The GPS receiver must be capable of either masking the EHE or masking the PDOP.
- The GPS receiver must be capable of detecting the number of satellites available.

### **GPS Receiver Settings**

- Either the EHE must be masked to less than or equal to 12 meters or the PDOP must be masked to less than or equal to six.
- A minimum of four satellites must be used to collect every position.
- If the GPS receiver can mask the SNR, the mask should be set to less than or equal to five.
- If the GPS receiver can mask the elevation, the mask should be set to 15 degrees.
- If the GPS receiver uses an antenna, the correct antenna height setting should be entered into the receiver.

## GPS Data Collection Field Methods

- Do not collect data during poor PDOP, EHE, or SNR periods.
- Use offset methods to collect data when multi-path interference is present as a result of trees or buildings.
- Always collect real time DGPS corrections or perform post-processing.
- Map all features in one area in a single day or on consecutive days.
- To collect point features in static mode, take a minimum of 30 positions, collected at one second intervals and averaged.
- To collect line and polygon features in kinematic mode, take a position every two to five seconds (more frequently, depending on your speed). Take positions at every corner. Use a minimum of three positions to define a curve or change in direction.

## GPS Data Dictionary

Data dictionaries should be set up to collect attribute data. A menu of the attributes and picklist of the attribute types can be set up and loaded into the GPS receiver before going out in the field. The data dictionary allows users to enter categorical data in a way that efficiently describes the resource.

## GPS Data Metadata

The metadata should be prepared in compliance with the Federal Geographic Data Committee *Content Standards for Digital Geospatial Metadata*. Record the following at a minimum:

- Model and accuracy of GPS receiver
- Estimated horizontal and vertical accuracy of the data
- Maximum EHE or PDOP
- Coordinate datum
- Coordinate projection
- Projection Zone, if using Universal Transverse Mercator (UTM) or State Plane projections
- The steps taken to alter the projection of the data, if any
- Software used to perform differential corrections
- Base station(s) used for differential corrections

The standard projection for data collected for the Efficient Transportation Decision Making (ETDM) Process in Florida uses the following parameters:

Map Projection Name: Albers Conical Equal Area  
Standard Parallel: 24 0 0.000  
Standard Parallel: 31 30 0.000  
Longitude of Central Meridian: -84 0 0.000  
Latitude of Projection Origin: 24 0 0.000  
False Easting: 400000.00000

False Northing: 0.000  
Planar Distance Units: Meters  
Horizontal Datum Name: Datum North American 1983 HARN  
Ellipsoid Name: Geodetic Reference System 80

### **Horizontal/Vertical Accuracy and Precision**

All spatial data collected must be analyzed for spatial accuracy and shall meet or exceed the National Map Accuracy Standards (NMAS) for the scale intended. Longitude and latitude coordinates for geographic data, if recorded, should be recorded to a minimum of five significant digits to the right of the decimal point and stored in double precision attribute or database fields. Any calculations done with the location data should be done at double precision with the results truncated to the appropriate propagated error limits. All calculations and spatial data processing must be reported in the metadata.

**CHAPTER 5**  
**EVALUATION: APPLYING THE NATIONAL REGISTER**  
**CRITERIA OF ELIGIBILITY**

*Public involvement and consultation are key elements intended to be ongoing throughout the four steps of the revised Section 106 process. The type of public involvement will depend upon various factors, including the nature and complexity of the undertaking, the potential impact, the historic property, and the likely interest of the public in historic preservation issues. Refer to Chapter 2 for an overview of the Section 106 process and a list of participants.*

**CHAPTER 5**  
**EVALUATION: APPLYING THE NATIONAL REGISTER OF**  
**HISTORIC PLACES CRITERIA OF ELIGIBILITY**

**5.0 OVERVIEW**

Once cultural resources have been identified, step 2 of the Section 106 process continues with the evaluation of all archaeological sites and historic properties identified within the project area. A survey that simply locates and describes sites without adequately evaluating their significance in terms of *National Register of Historic Places (NRHP)* eligibility is not a cultural resource “assessment” survey.

*Evaluation involves an assessment of the significance of a site or group of sites in terms of the criteria used to determine eligibility for inclusion in the NRHP. While properties usually must be 50 years of age or older to merit consideration, there are exceptions.*

Evaluation is completed before the effects of the transportation project are assessed under Section 106. For federally funded or assisted projects, evaluation is the responsibility of the FHWA, with FDOT gathering the information. FDOT is the responsible agency for state funded transportation projects. Whether the lead agency is FHWA or FDOT, evaluation is to be carried out in consultation with the SHPO. The FDOT may use consultants to assist in the evaluation process. According to the revised Section 106 regulations, evaluation will result in one of the following determinations: 1) no historic properties affected or 2) historic properties affected.

If FHWA finds that no historic properties are present or affected, it provides documentation to the SHPO and any other consulting parties and barring any objection in 30 days, proceeds with its undertaking and the Section 106 process is complete. If the evaluation finds that historic properties are affected, then FHWA proceeds to step 3 of the Section 106 process: Assess Adverse Effects. This step is discussed in Chapter 7.

Chapter 5 begins with a definition of *NRHP* Criteria for Evaluation. Pertinent considerations in the determination of what constitutes a significant cultural resource are then examined. The documentation of eligibility through the preparation of a Request for Determination of Eligibility is also included. The following sections are covered in this chapter:

| SECTION | CONTENTS   | PAGE |
|---------|--|------|
| 5.1     | <i>NRHP</i> Criteria   | 5-3  |
| 5.2     | What is a Significant Cultural Resource?                                     | 5-5  |
| 5.3     | Documenting Significance: The Request for Determination of Eligibility (DOE) | 5-9  |
| 5.4     | Featured Hyperlinks  | 5-11 |

## 5.1 NATIONAL REGISTER CRITERIA

The *NRHP* is an official listing of historically significant sites and properties throughout the country, which is maintained by the National Park Service, U.S. Department of the Interior. The [NRHP](#) program is administered at the state level by the SHPO, with the staff support of the Bureau of Historic Preservation.

The [NRHP criteria](#) for evaluation, as described in the *Code of Federal Regulations*, 36 CFR Part 60.4, are listed below. These criteria are worded in a manner to provide for a wide diversity of resources. Guidance in applying the criteria is provided in a number of “How To” bulletins published by the U.S. Department of the Interior, National Park Service. A list of available publications, with information for ordering, is provided in Appendix A.

### 5.1.1 NRHP Criteria for Evaluation

*The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:*

- A. *That are associated with events that have made a significant contribution to the broad patterns of our history; or*
- B. *That are associated with the lives of persons significant in our past; or*
- C. *That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or*
- D. *That have yielded, or may be likely to yield, information important in prehistory or history.*

### 5.1.2 Criteria Considerations

Some types of cultural resources are not considered eligible for the *NRHP* unless they meet special considerations. Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the *NRHP*. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- *A religious property deriving primary significance from architectural or artistic distinction or historical importance; or*

- *A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or*
- *A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life; or*
- *A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or*
- *A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or*
- *A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or*
- *A property achieving significance within the past 50 years if it is of exceptional importance.*

### 5.1.3 Integrity

In order to be listed in the *NRHP*, a cultural resource must meet Criterion A, B, C, or D (see Section 5.1.1) **and** must possess **integrity**. According to the “Guidelines for Applying the *National Register* Criteria for Evaluation” contained in [National Register Bulletin 15](#), integrity is “the authenticity of a property’s historic identity, evidenced by the survival of physical characteristics that existed during the property’s historic or prehistoric period.” The *NRHP* criteria specify that integrity is a quality that applies to historic and prehistoric (precontact) resources in seven ways: location, design, setting, materials, workmanship, feeling, and association. Analysis of integrity should be based on careful research in terms of both documentation of the property’s history, and physical inspection of the property.

For properties important for their information potential, such as most archaeological sites, integrity depends on the presence of those parts of the property which contain the important data and which survive in a condition capable of yielding important information. Comparative information about similar sites that have survived should be considered during the evaluation of integrity. **For example**, a partially disturbed precontact site, which nevertheless retains some information on the form and function of bone tools, may be eligible if it can be shown that the information contained in that site is important because bone preservation is almost unknown in the region.

A historic structure important for its expression of a particular architectural style must have retained most of the physical features that compose that style to be eligible. **For example**, while it may have lost some detailing or a limited amount of historic materials, the property must retain

the majority of the features that are essential to illustrate the style in terms such as massing, spatial relationships, proportion, pattern of windows and doors, texture of materials, and ornamentation.

## 5.2 WHAT IS A SIGNIFICANT CULTURAL RESOURCE?

### 5.2.1 Archaeological Sites

*Archaeological properties do not have to be large, impressive, or rich in artifacts or data to qualify for the National Register, nor do they have to be suitable for public interpretation. Any archaeological resource is potentially eligible if one can legitimately argue that it is likely to be associated with a cultural pattern, process, or activity important to the history or prehistory of its locality, the United States, or humanity as a whole, provided its study can contribute to an understanding of that pattern, process, or activity.*

*Dr. Thomas King*

Usually, archaeological sites are evaluated as eligible or potentially eligible for the *NRHP* under Criterion D; that is, the sites are considered to have the ability to yield information important in prehistory or history. Criteria A and B may also apply for individual sites. *For example*, the archaeological remains of a historic battlefield may be considered significant under both criteria A and D if associated with a significant event (e.g., the Second Seminole War) and if it retains research potential. Criterion C may be considered when an archaeological site (or association of sites) embodies the distinct characteristics of a type, period, or method of construction. This criterion is especially applicable if similar examples of the type are rare or poorly preserved. *For example*, the rarity of a Paleoindian base camp that possesses good contextual integrity would qualify the resource as a good candidate for the *NRHP* under Criterion C.

In order to be evaluated as eligible or potentially eligible for the *NRHP*, an archaeological resource must have demonstrated potential ability to yield important information. The reasons why a site has important research potential must be articulated very carefully in language that others can understand. What important research questions can be answered by the data contained in the site? Additionally, whether a site is significant can only be made within the context of an area's prehistory or history. So, the historical context is crucial to the evaluation. Finally, the resource must possess integrity as well as significance.

In general, two types of information are critical for an evaluation of eligibility: **contextual data** and **descriptive data**.

- **Contextual data** are information that place the site within a framework. Assumptions about age, cultural affiliation, and function should be substantiated with supporting data.

- Types of **descriptive data** required for site evaluation include, but are not limited to, site location, boundaries, and size; internal composition (subareas, features, strata, artifacts, attributes); the surrounding natural environment; and disturbances/intrusions (i.e., proposed development, agricultural practices, erosion, vandalism, urbanization).

The following **example** illustrates the contents of a well-prepared significance statement for an archaeological site considered potentially eligible for listing in the *NRHP* under Criterion D.

*The Colorado Site, 8HE241, is an extremely large and complex archaeological site. The artifacts recovered from or observed at 8HE241 indicate that lithic procurement and initial reduction activities, tool manufacture and maintenance activities, and general camp maintenance activities took place at the site. The density and distribution of artifacts at the site reflect either numerous short-term occupations of 8HE241 or, given its complex environmental configuration and location in relation to other resources in the vicinity, more permanent occupations of the site perhaps on a seasonal basis. The one pottery sherd recovered from a shallow depth at 8HE241 indicates occupation of the site at some point between 1200 B.C. and historic times. The great depth of the artifact deposit in other areas of the site argues for considerably earlier occupations of 8HE241, most likely during the middle to late stages of the Archaic Period. Some portions of the site have undergone varying degrees of disturbance due to land clearing activities, road construction, and limited development while other portions of the site remain in a natural state.*

*8HE241, based on data resulting from the present survey, is considered to contain information that would substantially contribute to a more complete understanding of the prehistory of the region. The site is considered significant for a number of reasons. First and foremost, perhaps, is the fact that 8HE241 can provide valuable information concerning the full range of lithic reduction process from activities involved with raw material acquisition to those involved in the maintenance of finished products. Furthermore, such activities appear to occur in relatively discrete areas of 8HE241, providing the opportunity for an increased understanding of the intra-site patterning of such activities, i.e., of their organization and placement within the site system. It is also considered that data regarding tool function at 8HE241 will be generated in sufficient quantity to provide increased information concerning precontact activities such as resource procurement and processing and general camp maintenance. Again, the survey suggests that 8HE241 could also provide information concerning the intra-site patterning of such activities.*

*. . . 8HE241 would have provided one of the nearest locations from a coastal perspective for obtaining a critical raw material, i.e., chert, to support precontact activities in the coastal areas, west of the site. . . . It is believed; therefore, that 8HE241 has the potential to provide information concerning coastal/inland or lowland/upland precontact mobility and adaptive strategies.*

*Finally, it should be noted that 8HE241 is the largest and most complex of the twenty-one archaeological sites located in the SR 50/50A survey. No site of similar type and size has been professionally excavated in the region. For all of the reasons noted above, it is recommended that additional work should be carried out at the Colorado Site and further recommended that the site should be considered eligible for listing in the NRHP.*

In some cases, the level of information resulting from the cultural resource assessment survey may not be adequate to actually establish whether a site is significant. Phase II archaeological test excavation may be necessary to evaluate eligibility and to determine both horizontal and vertical site boundaries. If the site extends beyond the study area, Phase II should be confined within the project impact zone.

## **5.2.2 Historic Resources**

The significance of historic resources is usually evaluated under Criterion A (association with historic events); Criterion B (association with important persons); or Criterion C (distinctive design or distinguishing characteristics as a whole). Often, more than one criterion applies to historic resources. *For example*, a historic residence may be distinguished for both its original occupant (i.e., pioneer in the women's suffrage movement), as well as its architectural style (i.e., the only surviving example of the Queen Anne style for the county).

In any evaluation of eligibility, it is critical that the following items are addressed and justified:

- Boundaries
- Significance and the applicable *NRHP* criteria
- Contributing and noncontributing resources when the historic resource contains more than one historic feature, or when there is a historic district

**5.2.2.1 Boundaries:** The determination of boundaries is a critical consideration because it will have direct bearing on the assessment of the project's effect on the historic resource. (Any lands included within the boundary are also protected under section 4(f) of the U.S. Department of Transportation Act). According to the information contained in [\*National Register Bulletin 16\*](#):

*Carefully select boundaries to encompass, but not exceed, the full extent of the significant resources making up the property. The area . . . should be large enough to include all the features of the property, but should not include "buffer zones" or acreage not directly contributing to the significance of the property.*

In general, the boundaries should be selected based upon historical significance and remaining integrity. For historic resources in rural settings, boundaries may be set smaller than the legal parcel as long as the boundaries include historically associated land that conveys the setting.

**5.2.2.2 Significance and the *NRHP* Criteria:** The evaluation of significance is important because the qualities defined will be used in the assessment of project effect. Significance should relate to the historic context described for the project area or broad themes identified. The formal statement of significance must refer to the specific *NRHP* criteria and provide facts on how the historic structure meets the criteria. It must also address integrity. When properly applied, lack of integrity will disqualify a resource from eligibility, regardless of other considerations.

[\*National Register Bulletin 16A\*](#) lists 30 categories as areas of significance, ranging from Agriculture to Transportation to “Other.” What historical associations does the resource have, and to what degree? Are there other similar resources in the area that are more significant? For resources that are significant under Criterion C, they need to have retained a high degree of physical integrity so as to illustrate what makes them significant. There is more leeway in physical integrity for resources significant under the other criteria.

**5.2.2.3 Contributing and Noncontributing Resources:** Within the defined boundaries of a historic district or some individual historic resources, there will be elements that do and do not represent or embody the characteristics making the property significant. It is critical in the assessment of effects that these elements are identified and documented in the project area. Contributing resources may include landscape features, street design elements such as lighting, and any element that may sustain the feeling and character of the resource. [\*National Register Bulletin 16\*](#) provides guidelines for defining contributing and noncontributing resources.

**5.2.2.4 Other Considerations:** Some other pertinent considerations when evaluating the eligibility of historic resources for listing in the *NRHP* include the following:

- Look at the resource in its present state and also look at what it could be with a little rehabilitation. Be reasonable, because almost any somewhat significant historic building, given enough money and time for restoration, could be considered potentially eligible for the *NRHP*.
- Look at the historic physical integrity of the resource. If the resource is a building or a structure, how much of the historic fabric of the building’s exterior is left? How extensive are the alterations and additions? If 50 percent of the building’s exterior fabric is modern, you could make a strong case against its eligibility. If nonhistoric additions cover more area than the resource itself, or if the primary elevation (usually the street elevation) is enshrouded by a modern addition, the building should not be *NRHP* eligible.
- Look at the present location and setting of the resource. Is it in its original location? Although relocation does not disqualify a resource from being *NRHP* eligible, it can be a factor. Also look at the setting, including adjacent property as well as the property in which the building is sited. Has its setting changed in a way that would affect the resource’s eligibility? Another important aspect of physical integrity is

the condition of the resource. If it is in deteriorated or ruinous condition, especially to the point where it cannot be rehabilitated, this will affect its eligibility.

- For a historic district, look at the density of older buildings. If at least 70 percent of the lots have historic buildings on them, the area may comprise a district. Next look at the physical integrity of the individual historic buildings within the district. Generally speaking, buildings in districts may be more altered than individually eligible buildings. Even buildings with little or no historic exterior fabric remaining have been considered as contributing structures to the *NRHP* if they are in scale and character with the other historic structures. Despite their alterations, they enhance the historic feel of the area.
- For resources previously determined to be eligible or ineligible for the *NRHP*, passage of time may require re-evaluation of site significance.

### **5.3 DOCUMENTING SIGNIFICANCE: THE REQUEST FOR DETERMINATION OF ELIGIBILITY (DOE)**

A formal request for a determination of eligibility (DOE) is made by the FDOT/FHWA whenever any historic resource located during the cultural resource assessment survey is found to be potentially eligible for inclusion in the *NRHP*. This request requires the *NRHP* Registration form of the National Park Service (Form 10-900, Oct. 1990). This form may be obtained from the SHPO's staff. [National Register Bulletin 16A](#) provides general guidelines for completion of this form and [National Register Bulletin 16B](#) provides additional information regarding multiple property determinations. Typically, however, a DOE request contains only the minimum information necessary for the SHPO, FDOT, and FHWA to reach a consensus concerning *NRHP* eligibility, and the required photographs only include 3.5 x 5 in, as opposed to a standard *NRHP* nomination.

*The completed DOE request is submitted by FDOT to FHWA, which applies the NRHP criteria to determine possible eligibility, in consultation with the SHPO. The NRHP eligibility review process is discussed in the PD&E Manual, Chapter 12. The actual formal determination of National Register eligibility is neither the responsibility of the FDOT, FHWA, nor their consultants, but rather rests with the Keeper of the National Register. The role of FDOT/FHWA is to prepare and submit a complete and adequate request.*

The DOE request form can be used to present a case for or against a historic resource's eligibility. The DOE request is particularly useful when a resource's eligibility is unclear, for it gives the forum for presenting both sides of the argument. Furthermore, the DOE request can be used to present the reasons a resource is not considered to be *NRHP* eligible.

If questions arise about the eligibility of a given property, the agency may seek a formal determination of eligibility from the National Park Service. Section 106 review gives equal consideration to properties that have already been included in the *NRHP* as well as those that have not been so included, but that meet *NRHP* criteria.

**Exhibit 5.1** at the end of this chapter provides an example of a completed DOE request (Harold Fowler, Sr. House). Excerpts from other DOE requests, focused on typical significance statements, are provided as follows:

**Example 1. The Wauchula Railroad Depot, Hardee County (District 1)**

*The Wauchula Railroad Depot is historically significant because it stands as a symbol of Community Planning and Development in Florida. The site and building are associated with events that have made a significant contribution to patterns of local history (Criterion A). The train station was the focal point in the early development of Wauchula's downtown. It has significance because of its association with the railroads which stimulated the economic development and residential settlement of Wauchula. The railroad provided passenger and freight transportation to the growing agricultural community. It literally placed Wauchula on the map, (the Florida Southern Railroad renamed the town Wauchula when the railroad tracks were laid), forging the expansion that was necessary to link the area to other regions of Florida.*

**Example 2. The Coachman Building, Pinellas County (District 7)**

*The 5-story Commercial style Coachman Building was designed and constructed by S.S. Coachman, one of Clearwater's early residents and Chairman of the first Board of Pinellas County Commissioners. When it was completed in the summer of 1917, it was "the most modern and only five story brick building in Pinellas County" according to the Clearwater News in a July 5, 1917 article (Sanders 1983:78). It was recently renovated in 1986 which included gutting the interior for new office space; building a contemporary glass-enclosed atrium along the east side, replacing an earlier building; constructing an addition on the south; and replacing the original windows with new compatible units (St. Petersburg Times, November 2, 1986). Despite these alterations, the original exterior brick finishes and details remain intact and in good condition. The overall character along the north and west street facades retains its original integrity.*

*This building is considered significant under National Register Criteria A, B, and C. It is a contributing structure to the development of the City of Clearwater (Criterion A); represents the achievements of a person involved in the local history of the area, S.S. Coachman (Criterion B); and remains as a fine example of the early 20th century Commercial style used for an early highrise office building in a small Florida city (Criterion C).*

5) **Example 3. The Orange City Downtown Historic District, Volusia County (District**

*The Orange City Downtown Historic District consists of 14 contributing resources and no noncontributing resources. These resources collectively reflect the early settlement of Orange City and an evolution of development about the nucleus which was established by the construction of the “DeYeman House” (also known as the DeYarman Inn) in 1874. The proposed historic district includes Frame Vernacular residences (most of which now accommodate small commercial establishments), a large two-story wood frame hotel (DeYarman Inn) which is now being converted to housing for the elderly, an original brick bank building which now accommodates a medical clinic, and the Orange City Utilities (original site of Orange City Mineral Spring). The Orange City Downtown Historic District is considered National Register significant under Criteria A, B, and C. Being the center of town, it served as the site of various events that made a significant contribution to the broad patterns of local history -- the establishment and development of Orange City (NRHP Criterion A). One significant local person, Captain H.D. DeYamen, Sr., represented by a historic building in the district, is also associated with the early history of Orange City (NRHP Criterion B). Within the proposed district are a collection of Frame Vernacular structures with Victorian and Stick style influences. These reflect the type of construction popular in the late 19th and early 20th centuries, during Orange City’s early history. The architecture of the remaining contributing structures represents the evolution of historical and architectural development that occurred prior to WWII, plus later alterations to earlier structures that happened as a result of radical changes to South Volusia Avenue in the 1970s. Collectively, they still maintain the unique integrity of their original appearance as a town neighborhood (NRHP Criterion C).*

#### **5.4 FEATURED HYPERLINKS**

NRHP Bulletins

<http://www.cr.nps.gov/nr/publications/bulletins.htm>

NRHP Bulletin 16 - Defining Boundaries for National Register Properties

<http://www.cr.nps.gov/nr/publications/bulletins/boundaries/>

NRHP Bulletin 16A - How to Complete the National Register  
Registration Form

<http://www.cr.nps.gov/nr/publications/bulletins/nrb16a/>

NRHP Bulletin 16B - How to Complete the National Register Multiple Property Documentation  
Form

<http://www.cr.nps.gov/nr/publications/bulletins/nrb16b/>

National Register of Historic Places

<http://www.cr.nps.gov/nr/index.htm>

*NRHP* Criteria of Eligibility

[http://www.cr.nps.gov/nr/publications/bulletins/nrb15/nrb15\\_2.htm](http://www.cr.nps.gov/nr/publications/bulletins/nrb15/nrb15_2.htm)

**EXHIBIT 5.1**  
**EXAMPLE OF COMPLETED REQUEST FOR**  
**DETERMINATION OF ELIGIBILITY (DOE) FORM**

**United States Department of the Interior  
National Park Service**

**NATIONAL REGISTER OF HISTORIC PLACES  
REGISTRATION FORM**

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

**1. Name of Property**

historic name Harold Fowler, Sr. House

other names/site number FSF No. 8OR4289

**2. Location**

street & number 1631 SR 535  not for publication

city or town Winter Garden  vicinity

state FLORIDA code FL county Orange code 095 zip code 34787

**3. State/Federal Agency Certification**

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this  nomination  request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property  meets  does not meet the National Register criteria. I recommend that this property be considered significant  nationally  statewide  locally. ( See continuation sheet for additional comments.)

\_\_\_\_\_  
Signature of certifying official/Title Date

Florida State Historic Preservation Officer, Division of Historical Resources  
State or Federal agency and bureau

In my opinion, the property  meets  does not meet the National Register criteria. ( See continuation sheet for additional comments.)

\_\_\_\_\_  
Signature of certifying official/Title Date

\_\_\_\_\_  
State or Federal agency and bureau

**4. National Park Service Certification**

I hereby certify that the property is:

entered in the National Register  
 See continuation sheet

determined eligible for the National Register  
 See continuation sheet.

determined not eligible for the National Register  
 See continuation sheet

removed from the National Register.

other, (explain) \_\_\_\_\_

\_\_\_\_\_  
Signature of the Keeper

\_\_\_\_\_  
Date of Action

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Harold Fowler, Sr. House  
Name of Property

Orange County, FL  
County and State

**5. Classification**

**Ownership of Property**  
(Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

**Category of Property**  
(Check only one box)

- buildings
- district
- site
- structure
- object

**Number of Resources within Property**  
(Do not include any previously listed resources in the count)

| Contributing | Noncontributing |            |
|--------------|-----------------|------------|
| 1            | 2               | buildings  |
| 0            | 0               | sites      |
| 1            | 0               | structures |
| 0            | 0               | objects    |
| 2            | 2               | total      |

**Name of related multiple property listings**  
(Enter "N/A" if property is not part of a multiple property listing.)

N/A

**Number of contributing resources previously listed in the National Register**

0

**6. Function or Use**

**Historic Functions**  
(Enter categories from instructions)

DOMESTIC/single dwelling  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Current Functions**  
(Enter categories from instructions)

DOMESTIC/single dwelling  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**7. Description**

**Architectural Classification**  
(Enter categories from instructions)

Tudor Revival  
\_\_\_\_\_  
\_\_\_\_\_

**Materials**  
(Enter categories from instructions)

foundation BRICK  
walls STUCCO  
WOOD/ weatherboard  
roof ASPHALT  
other WOOD  
OTHER/ clay tile

**Narrative Description**

(Describe the historic and current condition of the property on one or more continuation sheets.)

Harold Fowler, Sr. House  
Name of Property

Orange County, FL  
County and State

**8. Statement of Significance**

**Applicable National Register Criteria**

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B** Property is associated with the lives of persons significant in our past.
- C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D** Property has yielded, or is likely to yield information important in prehistory or history.

**Criteria Considerations**

(Mark "x" in all the boxes that apply.)

Property is:

- A** owned by a religious institution or used for religious purposes.
- B** removed from its original location.
- C** a birthplace or grave.
- D** a cemetery.
- E** a reconstructed building, object, or structure.
- F** a commemorative property.
- G** less than 50 years of age or achieved significance within the past 50 years

**Narrative Statement of Significance**

(Explain the significance of the property on one or more continuation sheets.)

**9. Major Bibliographical References**

**Bibliography**

Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

**Previous documentation on file (NPS):**

- preliminary determination of individual listing (36 CFR 36) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # \_\_\_\_\_
- recorded by Historic American Engineering Record

**Areas of Significance**

(Enter categories from instructions)

ARCHITECTURE

**Period of Significance**

1920-1922

**Significant Dates**

1920-1922

**Significant Person**

N/A

**Cultural Affiliation**

N/A

**Architect/Builder**

King, Murray S.

Architect

**Primary location of additional data:**

- State Historic Preservation Office
- Other State Agency
- Federal agency
- Local government
- University
- Other

Name of Repository

# \_\_\_\_\_

Harold Fowler, Sr. House  
Name of Property

Orange County, FL  
County and State

**10. Geographical Data**

**Acreage of Property** less than 1 acre

**UTM References**

(Place additional references on a continuation sheet.)

|   |      |   |         |   |   |   |   |   |          |   |   |   |   |   |   |
|---|------|---|---------|---|---|---|---|---|----------|---|---|---|---|---|---|
| 1 | 1    | 7 | 4       | 2 | 2 | 5 | 3 | 0 | 3        | 1 | 5 | 4 | 9 | 2 | 0 |
|   | Zone |   | Easting |   |   |   |   |   | Northing |   |   |   |   |   |   |
| 2 |      |   |         |   |   |   |   |   |          |   |   |   |   |   |   |

|   |      |  |         |  |  |  |  |  |          |  |  |  |  |  |  |
|---|------|--|---------|--|--|--|--|--|----------|--|--|--|--|--|--|
| 3 |      |  |         |  |  |  |  |  |          |  |  |  |  |  |  |
|   | Zone |  | Easting |  |  |  |  |  | Northing |  |  |  |  |  |  |
| 4 |      |  |         |  |  |  |  |  |          |  |  |  |  |  |  |

See continuation sheet

**Verbal Boundary Description**

(Describe the boundaries of the property on a continuation sheet.)

**Boundary Justification**

(Explain why the boundaries were selected on a continuation sheet.)

**11. Form Prepared By**

name/title Harvey Dogtrot, Architectural Historian

organization The CR Group, Inc. date August 11, 1995

street & number P. O. Box 123 telephone 841/555-9876

city or town Sunshine state FL zip code 30123

**Additional Documentation**

Submit the following items with the completed form:

**Continuation Sheets**

**Maps**

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

**Photographs**

Representative **black and white photographs** of the property.

**Additional items**

(check with the SHPO or FPO for any additional items)

**Property Owner**

(Complete this item at the request of SHPO or FPO.)

name Isabel T. Fowler, Life Estate

street & number 1631 SR 535 telephone \_\_\_\_\_

city or town Winter Garden state FL zip code 34787

**Paperwork Reduction Act Statement:** This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and amend listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

**Estimated Burden Statement:** Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

United States Department of the Interior  
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section number 7 Page 1

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**Section 7: Narrative Description**

Summary

The Harold Fowler, Sr. House (Fowler House) at 1631 SR 535 is located approximately two miles south of the City of Winter Garden. Construction of the one-and-one-half-story structure began in 1920 and was completed in 1922. Although constructed in the Tudor Revival Style, the influence of the Craftsman movement is also apparent. The residence has an irregular form dominated by a false thatched, intersecting gable roof with clipped gable ends, exposed rafters, and eyebrow dormers. The one-story north (front) entrance porch consists of paired, stylized Greek columns supporting ornamented wood framing members and the balcony above. The wood framed structure is clad in stucco. The original fence located north of the structure exhibits similar influences in material and design.

Architectural Description

The Fowler House is nested within a large citrus grove, approximately 100 yards east of SR 535. It is located on the southeast corner of two private, unpaved access roads, one leading west and the other leading south through the grove to SR 535. A small number of other, generally residential structures associated with the family and Fowler Groves are located along these trails proximate to the Fowler House.

The one-and-one half story house with its intersecting gable roofline assumes an irregular shape. The roof, with its gently rolled edges and curved dormers, provides a convincing imitation of thatch. Clipped gable ends and projecting eaves on exposed rafters further characterized the roof. The attic of the dominant gable was designed as a third floor, but never finished. As a result, fixed louvers rather than windows face the attic's gable end walls. The front-facing gable is itself asymmetrical, with an elongated west slope.

A shaped dormer sided with wood weatherboard projects from the west slope. Although this dormer recognizes the curvilinear nature of false thatch rooflines, it is not an original feature. Initially this was an open balcony. It was enclosed ca. 1950 shortly after the arrival of the homè's second owner, Harold Fowler, Jr. and his wife Isabel.

The east facing intersecting gable is also asymmetrical, with an elongated south slope. A flush-walled eyebrow dormer faces north. Two small eyebrow dormers faced with louvered vents flank an internal chimney on the south slope. Both chimneys, including one located at the center of the dominant ridge, are stuccoed and unadorned.

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**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section number 7 Page 2

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A small, one-story shed roofed room extension projects from the east wall. Decorative brackets which originally supported a wooden planter box remain below its east facing window. Similar brackets were removed from below the north facing dormer, as was an early planter box.

The original exterior walls of the residence are wood framed and clad in stucco. They rest atop a continuous foundation wall faced with red brick set in a running bond over a soldier course. The foundation wall projects to support the irregular shape of the north entrance porch and balcony. In addition, the foundation wall borders the red brick steps of the north and east entries.

The home's two over two, wood, double-hung sash windows are randomly placed, either independent, paired, or grouped in threes. The glass panes of the windows are vertically oriented, as was common in early 20th century architecture. These proved to be ca. 1989 replacements (Isabel Fowler 8/10/95). Originally the home was fitted with wood casement windows, sheltered by canvas awnings, and flanked by functional wood shutters. The awnings were never replaced after being damaged by a hurricane. The shutters, however, have been replaced in kind.

An open deck projects approximately ten feet from the north façade wall, extending from the western edge of the home to the entrance porch. The deck, clad in six inch square clay floor tile, is about eight inches above grade. The adjacent north entrance porch is raised approximately two-and-one-half feet above grade. Like the open deck to the west, the porch deck projects forward approximately ten feet from the north façade walls and is surfaced with six inch square clay tile. The two bays of the porch are slightly offset, reflecting the massing of the house.

Paired masonry columns with stylized Doric capitals define the bays of the entrance porch and support shaped beams and rafters of the balcony above. Pilasters flank the porch entrances on the first floor. The header above the main doorway is accentuated and slightly arched over a single, multi-light door and flanking multi-light transoms. Two pair of unadorned, multi-light doors are regularly spaced along the north wall of the east porch bay. This bay was originally screened. The screening was replaced with metal awning windows and fixed glass ca. 1985.

A simple Tudor influenced doorway of arched board and batten doors, centered above the main first-floor entry, leads to the balcony. Originally planter boxes lined the balcony. They required frequent repair and replacement, and were completely removed ca. 1975. At that time an ornamental iron balustrade was installed. The replacement balustrade was itself removed in 1993 due to deterioration and was never replaced.

A small entrance porch originally occupied the southeast corner of the house. It was enclosed with metal awning windows ca. 1965. Also at that time, a small open deck along the south wall was enclosed. It was

**United States Department of the Interior  
National Park Service**

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section number 7 Page 3

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similar to the open deck on the north before it was enclosed with stuccoed walls, awning windows, and a flat roof.

The Fowler House contains a partial basement. It is located below the first floor of the south gable extension and is accessed from the south at ground level. Originally it served as a furnace room. The furnace was removed ca. 1948 at which time the room was refinished.

A masonry fence is located north of the house. Unlike the Fowler house, the fence is characterized by symmetrical massing. It is approximately four feet high, with a slight rise at either end and at the centered pedestrian entry. The fence is stuccoed, with a rowlock course of brick exposed along its top surface and a soldier course exposed along its base. The pedestrian entry has a side-gabled wood framed roof, with clipped gabled ends and rolled edges. Original ornamental iron gates were removed during World War II and donated to the war effort.

A pump house was always located south of the house. Currently a wood framed, gable roofed utility building stands at that location. It is clad in contemporary materials and is unrecognizable as a historic structure. In addition, a ca. 1965 masonry, gable roofed, four-bay garage is located southeast of the house. Neither of these buildings contribute to the architectural significance of the Fowler House, therefore they are not included within the proposed NRHP boundaries of this Request for Determination of Eligibility.

**United States Department of the Interior  
National Park Service**

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section number 8 Page 1

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**Section 8: Narrative Statement of Significance**

Summary

The Harold Fowler, Sr. House (Fowler House), located at 1631 State Road 535, appears to be significant at the local level under National Register of Historic Places (NRHP) Criterion C. Completed in 1922, it represents a significant historic architectural resource in rural Orange County. The structure displays characteristics of the false thatch roof derivative of the Tudor Revival Style and is a unique example for the area.

The influence of the False Thatched Roof subtype of the Tudor Revival Style is describe by Virginia & Lee McAlester as an attempt “to mimic with modern material the picturesque thatched roofs of rural England.” (McAlester 1984: 356) The Tudor Revival was extremely popular in the United States during the 1920s and early 1930s, and was a dominant style for domestic architecture during that time period. The Fowler House is an early example of this influence in rural Orange County and retains a respectable degree of integrity in location, setting, design, materials, and workmanship.

Historical Context

During the late nineteenth century, Harold Fowler, Sr. and his uncle, Al Thomas, came to Florida from Massachusetts. Thomas applied for a homestead, and upon completion of the required improvements to the land and his seven year occupation the homestead was granted in the early 1880s. Fowler later inherited Thomas’ homestead and cultivated citrus on it. By 1920, the homestead had grown to approximately 200 acres.

A few wood frame vernacular structures were clustered in relative isolation along a dirt road within the former homestead, surrounded by the citrus grove. The surroundings were generally residential, housing family members or Fowler’s Grove employees. Fowler and his wife, Irene Pope, lived in a two-story wood frame home which stood on the site of the current residence. The original home was later dismantled so that the present one could be built.

Constructed from 1920-1922, the current private residence was designed by architect Murray S. King of Orlando. King, who was originally from Pennsylvania, came to Orlando in 1904. He was a prolific architect and designed the plans for the Astor Hotel, the Grand Theatre, and the Orange County Courthouse, among others, all in Orlando.

During World War II, the original wrought iron gates at the house and the metal fencing around the groves were taken up and donated to the war effort in a show of support for Howard Fowler, Jr. who was in

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service. It was never replaced in kind. In 1949, soon after Harold Fowler, Sr.'s death, his son, Howard Fowler, Jr. and his wife Isabel, moved into the structure. It was about that time when the west balcony was enclosed and the furnace room was rehabilitated. They continued to enlarge the grove, and at Fowler Jr.'s death in the 1980s the grove was approximately 300 acres in size. Currently the house is owned by Isabel T. Fowler Life Estate.

Architecture (Criterion C)

The primary influence of the Tudor Revival Style was the architecture of 16th and 17th century England, elements of which were freely mixed in its late 19th and early 20th century American context. Although the earliest examples tended to interpret their English predecessors more precisely, elements of the style were modified and incorporated into modest homes of the early 20th century. The popularity of the style increased, particularly in the late 1920s, as less expensive materials and methods of construction were developed and utilized to imitate more costly materials of the English prototypes (McAlester 1984: 356). This appears to be evident in the Fowler House.

The Fowler House represents the rare False Thatch Roof subtype of domestic Tudor Revival Style construction. Architect Murray S. King designed the roof elements with rolling edges. Rolling the roofing material along those edges gives the appearance of a thick layer of thatch. Other architectural features of the wood framed structure include asymmetrical massing, intersecting gables with clipped gable ends, eyebrow dormers, a stucco veneer, and a balcony supported on stylized Greek columns. In addition, a Craftsman influence is evident in the exposed and shaped wood framing of the balcony.

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**Section 9: Major Bibliographical References**

Blumenson, John J.-G.

1983 Identifying American Architecture: A Pictorial Guide to Styles and Terms, 1600-1945. Revised Edition. W. W. Norton & Company, Inc., New York, New York.

Bekemeyer, Steve.

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Fowler, Isabel T.

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Howard, C. E.

1915 Early Settlers of Orange County, Florida. C. E. Howard Publishers, Orlando, Florida.

McAlester, Virginia & Lee

1984 A Field Guide to American Houses. Alfred A. Knopf, New York.

Poppeliers, John C., S. Allen Chambers, Jr. and Nancy B. Schwartz

1983 What Style Is It? The Preservation Press, Washington D. C.

Whiffen, Marcus

1992 American Architecture Since 1780: A guide to the Styles. Revised Edition. MIT Press, Cambridge, Massachusetts.

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## **NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET**

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### **Section 10: Geographical Data**

#### Verbal Boundary Description

A parcel of land approximately 45.7 m (150 ft) east-west by 38.1 m (125 ft) north-south, located along the northern border of Orange County tax parcel number 022327000000001.

#### Boundary Justification

This includes the Fowler residence with its original masonry fence on the north. It does not include the highly modified Frame Vernacular Style outbuilding south of, or the non-historic Masonry Vernacular Style four car garage southeast of the residence.

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Section number 11 Page 1

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**Section 11: List of Photographs**

1. Harold Fowler, Sr. House
2. Orange County, Florida
3. Daniel Delahaye
4. August, 1995
5. Archaeological Consultants, Inc.
6. North Façade, looking south
7. 1 of 6

The information for items 1 through 5 is the same for the following photographs:

6. East façade, looking west  
7. 2 of 6

6. Perspective view, south and west facades, looking northeast  
7. 3 of 6

6. Perspective view, north and west facades, looking southeast  
7. 4 of 6

6. Detail of north entrance porch, looking south  
7. 5 of 6

6. Perspective view, north fence façade, looking southeast  
7. 6 of 6

NATIONAL REGISTER

PHOTOGRAPH NO. 1 of 6

PROPERTY NAME Harold

Fowler Sr. House

LOCATION Orange County



PHOTOGRAPH NO. 2 of 6



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PHOTOGRAPH NO. 3 of 6

PROPERTY NAME Harold

Fowler Sr. House

LOCATION Orange County



PHOTOGRAPH NO. 4 of 6



NATIONAL REGISTER

PHOTOGRAPH NO. 5 of 6

PROPERTY NAME Harold

Fowler Sr. House

LOCATION Orange County

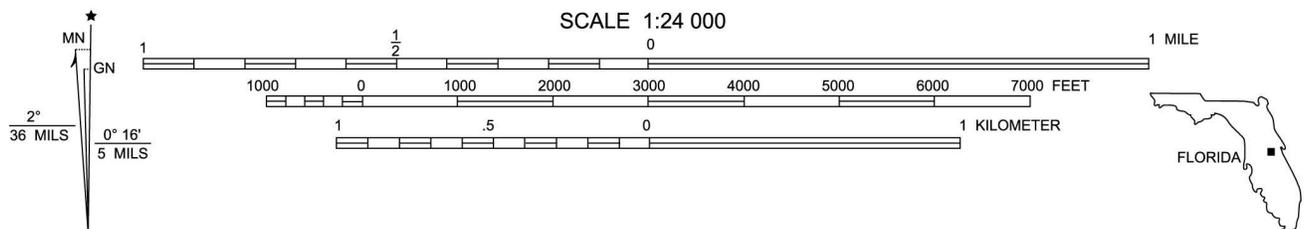
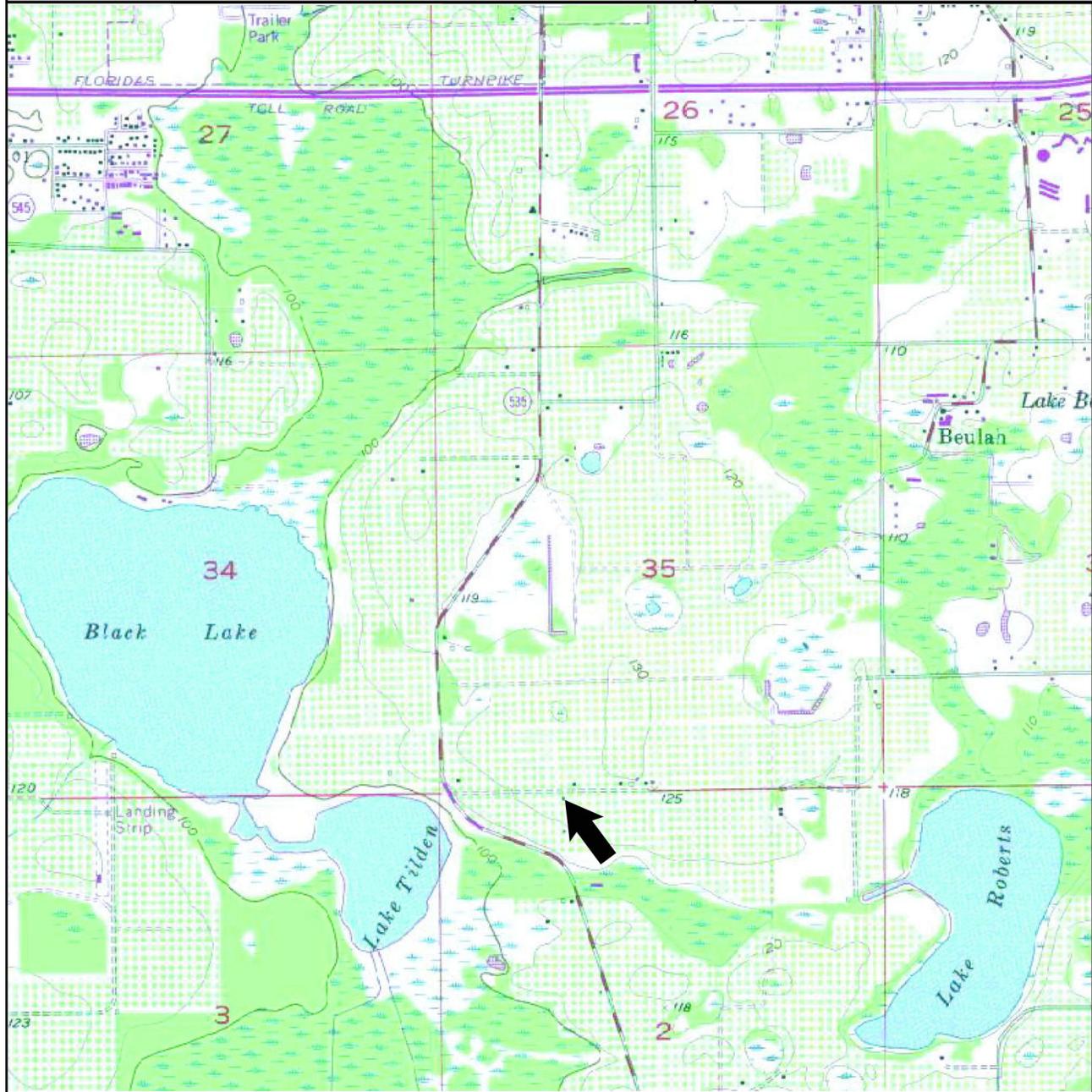


PHOTOGRAPH NO. 6 of 6



NATIONAL REGISTER

|                                   |  |
|-----------------------------------|--|
| <p>U.S. GEOLOGICAL SURVEY MAP</p> | PROPERTY NAME <u>Harold</u><br><u>Fowler Sr. House</u>           |
|                                   | LOCATION <u>USGS Winter Garden, Fla.</u><br><u>1975, PR 1987</u> |



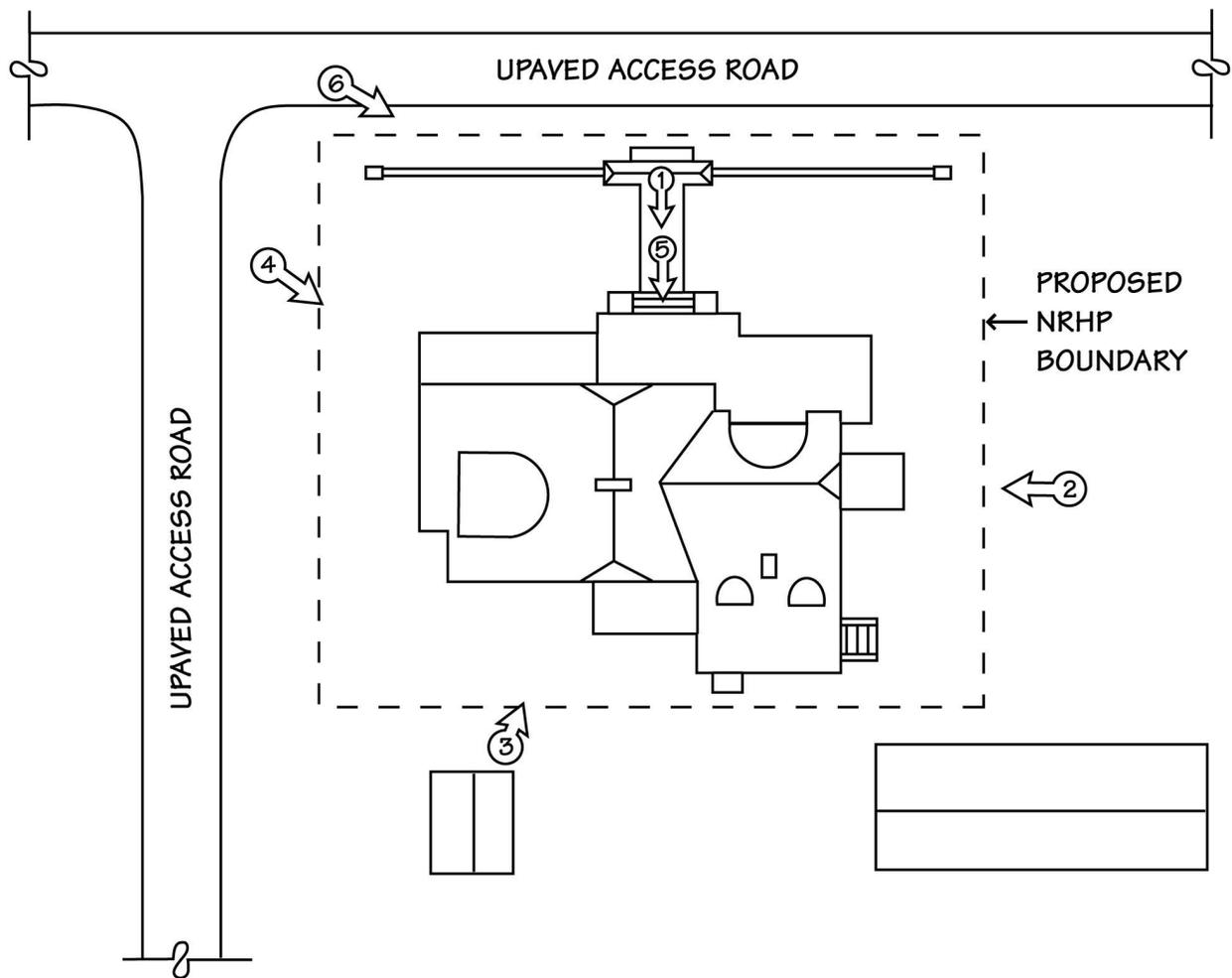
NATIONAL REGISTER

SITE PLAN

PROPERTY NAME Harold

Fowler Sr. House

LOCATION Orange County



PROPOSED  
NRHP  
BOUNDARY



NOT TO SCALE

**CHAPTER 6**  
**DOCUMENTING THE CULTURAL RESOURCE**  
**ASSESSMENT SURVEY (CRAS): REPORTS AND**  
**TECHNICAL MEMORANDA**

*Public involvement and consultation are key elements intended to be ongoing throughout the four steps of the revised Section 106 process. The type of public involvement will depend upon various factors, including the nature and complexity of the undertaking, the potential impact, the historic property, and the likely interest of the public in historic preservation issues. Refer to Chapter 2 for an overview of the Section 106 process and a list of participants.*

**CHAPTER 6**  
**DOCUMENTING THE CULTURAL RESOURCE ASSESSMENT**  
**SURVEY (CRAS): REPORTS AND TECHNICAL MEMORANDA**

**6.0 OVERVIEW**

Regardless of whether significant cultural resources were identified and evaluated, the results of **all** cultural resource assessment surveys must be documented. For most transportation projects involving archaeological sites and historic structures, a **cultural resource assessment survey (CRAS) report**, as required in [Part 2, Chapter 12 \(revised\) of the PD&E Manual](#), is prepared. The CRAS report is prepared first in draft form for review and comment by the FDOT Project Manager. The preparers then revise it, and resubmit it to the Department for distribution to the FHWA and/or SHPO. The report presents the methods, findings, evaluations, and recommendations of the completed assessment survey. It conforms to the standards set forth in the FDOT's PD&E Manual, and the guidelines in the [Florida DHR's Historic Preservation Compliance Review Program Guide](#) (revised 1990) and Cultural Resource Management Standards and Operational Manual (2003).

This chapter describes the content requirements of the standard CRAS report. Formatting specifications, the organization of deliverables such as FMSF forms, and the report distribution process are also included.

In the case of smaller projects with minimal cultural resource involvement, such as certain bridge replacements and retention pond/wetland mitigation area siting studies, a **Technical Memorandum** may be substituted for the CRAS. Chapter 5 includes also the content and distribution requirements for these abbreviated documents.

The following sections are covered in this chapter:

| <b>SECTION</b> | <b>CONTENTS</b>                   | <b>PAGE</b> |
|----------------|-----------------------------------|-------------|
| 6.1            | CRAS Report Contents              | 6-2         |
| 6.2            | CRAS Report Format Specifications | 6-11        |
| 6.3            | Accompanying Deliverables         | 6-12        |
| 6.4            | CRAS Report Distribution          | 6-13        |
| 6.5            | Technical Memoranda               | 6-15        |
| 6.6            | Featured Hyperlinks               | 6-16        |

**6.1 CRAS REPORT CONTENTS**

The standard CRAS report is a detailed, organized, and suitably illustrated document, usually divided into a number of sections. In those cases where the cultural resource assessment survey has resulted in the identification and evaluation of archaeological sites and/or historic structures, relevant documents such as FMSF forms are appended to the body of the report. Typically, the CRAS report contains chapters that cover the following information:

- Description of the project, including location and nature of the undertaking
- Purpose of the assessment survey
- Environmental, archaeological, and historic overviews
- Research considerations and methods
- Survey results
- Site evaluations
- References
- Appendices

The report proper can be described in three parts: the preliminary pages, the report body, and the appendices. The content requirements of each are described below.

### **6.1.1 Preliminary Pages**

The body of the CRAS report is preceded by the title page, inside cover page, executive summary, table of contents, and list of figures and tables.

The **Title Page** usually contains the following information:

- Report title - project name and location
- Project numbers (i.e., state project number, work program item number, and federal-aid project number (if appropriate))
- Sponsoring agency (i.e., US Department of Transportation, Federal Highway Administration; Florida Department of Transportation)
- Date of report - the original date the report was processed appears on the draft; the original date and revised date appear on the final
- Volume number - if report consists of more than one volume, then it must be noted on the cover

The **Inside Cover Page** contains much of the same information included on the outside or front cover, but with some additions:

- The name of the consultants(s) performing the work
- The names of the project personnel responsible for the report, listed with their titles
- Date of report
- Volume number – if it is a multi-volume report

The **Executive Summary** follows the inside cover page and usually consists of a succinct one to two page abstract which:

- Describes the purpose and scope of the project and specifies the type of study
- Lists date(s) of investigation
- Summarizes major findings of the investigation
- Lists and describes previously recorded sites

- Summarizes significance of discovered resources pursuant to *National Register of Historic Places (NRHP)* criteria
- Describes constraints of investigation (time, landowner permission, vegetation, etc.)

The **Table of Contents** varies depending on the size and complexity of the project. Standard report sections frequently are numbered sequentially. This is critical in reports that contain multiple volumes. Following is a list of components for a typical table of contents:

- List of Figures and Tables (can appear together or separately)
- Executive Summary
- Introduction
- Environmental Overview
- Precontact Overview
- Historical Overview
- Research Considerations and Field Methodology
- Survey Results (or separate into two sections: Archaeological Survey Results and Historical Survey Results, depending on length of report)
- Site Evaluations
- References Cited
- Appendices

The **List of Figures and Tables** can appear on the same page or, in accordance with the length and/or complexity of the report, may be divided into a **List of Figures** and a **List of Tables** on separate pages. Figures and tables may be numbered consecutively, or numbered in reference to the report section within which they are contained. Thus, the second figure in the fifth section of the report may be numbered Figure 5.2. Oversized figures that require placement on more than one page may be designated alphabetically as well as numerically. *For example*, a figure illustrating the locations of sites along a project corridor that covers three pages in the sixth chapter of the CRAS report, may be numbered Figures 6.1a, 6.1b, and 6.1c. Tables may be numbered in the same way.

### 6.1.2 Report Body

The body of the report is usually divided into a number of sections, described as follows.

**6.1.2.1 Introduction:** The Introduction is usually the first chapter or section in the report and identifies the agency responsible for the undertaking, states the name and location of the project, and most importantly, it contains a succinct description of the proposed undertaking, a definition of the APE (with accompanying figure), and the identifying components of the project area. The Introduction also identifies the need for the CRAS, the consultant who prepared the report, the survey dates, and regulatory requirements and standards. Acknowledgments are optional.

## Example 1. Introduction

*The purpose of the cultural resource assessment survey was to locate and identify any precontact and historic period archaeological sites and historic structures located within and adjacent to the project impact zone and to assess their significance in terms of eligibility for listing in the NRHP. The archaeological and historical/architectural components of the survey were conducted in December of 1994 . . .*

*This survey was initiated in order to comply with Section 106 of the National Historic Preservation Act of 1966, as amended by Public Law 89-665; the Archaeological and Historic Preservation Act, as amended by Public Law 93-291; Executive Order 11593; and Chapter 267, Florida Statutes. All work was carried out in conformity with Part 2, Chapter 12 (“Archaeological and Historical Resources”) of the Florida Department of Transportation’s Project Development and Environment Manual (July 1988 revision), and the standards contained in “The Historic Preservation Compliance Review program of the Florida Department of State, Division of Historical Resources” manual (revised 1990).*

Graphics typically include project location map(s), general location of project area, and other information necessary for SHPO to ascertain the relationship of significant historic resources to the undertaking.

**6.1.2.2 Environmental Overview:** The environmental overview is based on data obtained during the background research/literature review. It identifies natural and cultural factors that characterize the project area, and documents environmental changes that may have influenced the distribution of precontact and historic sites.

The environmental overview also provides a description and discussion of past and present environmental configurations in terms of their relationship to the occurrence or potential occurrence of precontact and historic sites. Such environmental features include:

- Topography
- Geology
- Physiography
- Hydrology
- Soils
- Vegetation
- Paleoenvironmental characteristics
- Natural resources such as chert and clay
- Existing human environment (urban/rural development)

Graphics for this section usually include a project location map (frequently the USGS quadrangle map or a soil survey map) to identify salient environmental features within the project area. Tables identifying various types of soils, vegetation, and drainage characteristics within the project areas may be included.

**6.1.2.3 Precontact Overview:** The precontact overview is based on data obtained during the background research/literature review. It provides a summary of regional prehistory based on the archaeological record beginning with the Paleoindian Period and concluding with the arrival of the Europeans. The overview demonstrates the consultant's awareness of previous research and the types of sites, both functional and chronological, expected to occur in the project area and vicinity. This overview also provides a basis for analysis of recovered artifacts and evaluation of site significance in terms of *NRHP* eligibility.

The precontact overview focuses on regional contexts, chronologies, research questions and site types drawn from [\*Florida's Historic Contexts\*](#) (DHR draft 1992), and other standard discussions of Florida prehistory such as *Florida Archaeology* by Jerald T. Milanich and Charles H. Fairbanks (1980), *Archaeology of Precolumbian Florida* also by Milanich (1994), and *The Archaeology of the Everglades* by John Griffin (edited by Milanich and James Miller, 2002), and *The Archaeology of the Florida Gulf Coast* by Gordon R. Willey (1998), as well as the FMSF.

Graphics for the precontact overview section may include figures depicting the location of regional culture areas/archaeological regions (e.g., Milanich and Fairbanks 1980:22; Griffin 1987:121) in relation to the transportation project area, as well as tables summarizing the local succession of culture periods (e.g., Milanich and Fairbanks 1980:23).

**6.1.2.4 Historical Overview:** Likewise, the historic overview is based on data obtained during the background research/literature review. It identifies salient events, structures, locales, and individuals associated with historic development and land-use patterns in the general and specific project areas. Also, it should address the development of the human environment along the corridor. The historic overview demonstrates professional awareness of previous research in the area, the historic record, types of architectural styles, structures expected, and the economic development of the general project area. Finally, the overview provides a basis for analysis and evaluation of historic structures and landscapes in terms of *NRHP* eligibility.

The overview draws on the historic contexts presented in *Florida's Culture Heritage: A View of the Past* (DHR draft 1992) and is broad enough to address such issues as regional exploration, colonization, settlement, industry, and transportation. It also includes local developmental trends, particularly as they relate to historic resources within or near the project area. *For example*, a set of 1915 Sanborn Maps may show single-family residential development along and adjacent to the project area. However, a set of 1928 Sanborn maps for the same area may show that commercial buildings have replaced the earlier residential development. As a result, the historic survey will focus on the extant commercial structures, but the historical overview will address both the residential development and the commercial development.

Graphics for the historic overview section vary depending on local and regional development, but often include the following:

- Federal Surveyor's Plat Maps
- Late-19th Century Railroad Maps
- Subdivision Plats
- Sanborn Maps
- Early-20th Century Maps
- City Plats
- Coast and Geodetic Survey Maps
- Land Ownership Maps

**6.1.2.5 Research Considerations and Field Methods:** Research Considerations, which include a statement of the research design, are based on the precontact, historic, and environmental overviews, and other pertinent sources. The research considerations take into account the many factors that influence archaeological and historical field survey and methodology such as size of study area (linear/pond/bridge approach), location (urban/rural), access, and land use during the past 50 to 100 years.

Typically, archaeological considerations include research questions relevant to the geographic area and temporal periods, the probability for the occurrence of precontact and historic archaeological sites, and the methodology proposed to locate such properties. That is, research considerations cite pertinent research, state the goals of the current investigation, and describe the expected historic structures and/or archaeological resource types and their anticipated locations.

A detailed discussion of the anticipated field methods should be included. For archaeological surveys, specific sampling strategies, the rationale for their use, and a description of their projected implementation is provided. *For example*, which localities are deemed to have high, medium, and low site potential? How will subsurface testing be carried out in each probability zone? How will site dimensions and conditions be determined?

For the historic structures survey include a detailed discussion of the field methodology. This outlines preliminary survey strategies and research sources used; it also identifies critical issues that delimit field survey, such as access, personal safety, etc. The methodology can also include the type of photographic equipment and film used as well as the aerial photographs and maps relied on during the field survey. In addition, the historic research considerations identify already listed *NRHP* districts or individual sites in and near the project area, and address the kinds of resources expected to occur.

Graphics for the research consideration/field methodology section of the report typically include the following:

- Pertinent USGS quadrangle maps on which probability zones for archaeological sites are delineated (i.e., high, medium, low) as detailed in the research design
- Table(s) and/or map(s) noting the location, type and chronological placement of previously recorded archaeological sites in the general project vicinity. Normally, known sites within a one to five mile (1.6 to 8 km) radius are considered

- Figure(s) illustrating the location of previously recorded historic structures and districts within and proximate to the project study area

**6.1.2.6 Survey Results:** This section of the report presents a description of the results by enumerating and describing each resource recorded. The findings of the background research are incorporated in evaluating the site(s) significance in terms of [NRHP criteria of eligibility](#). If numerous archaeological sites and historic structures are found within the project area, this section of the report is commonly divided into two separate chapters, “**Survey Results: Archaeological**” and “**Survey Results: Historic Resources.**”

The **Survey Results: Archaeological** section begins with a paragraph listing the number of shovel tests dug, the number of sites found, and a general statement briefly categorizing the precontact and historic archaeological sites identified and assessed.

### **Example 2. Survey Results: Archaeology**

*Archaeological field survey entailed both ground surface reconnaissance and the excavation of 327 subsurface shovel tests. Of these, 154 were excavated systematically at 20 and 25 m (66 and 82 ft) intervals in zones of high archaeological probability, 100 were dug in areas of medium probability, and 19 were placed in zones of low probability. Also, 54 shovel tests were excavated systematically at 10 m (33 ft) intervals to define site boundaries, and judgmentally at various other locales along the corridor to sample areas not included in the high and moderate probability zones.*

*As a result of these efforts, a total of seven new archaeological sites were discovered and recorded. These have been assigned the FMSF numbers 8HI5633 through 8HI5636 and 8PA480 through 8PA482. In addition, previously recorded sites 8PA357, 8HI470, 8HI4066, 8HI4067, and 8HI4078 were relocated and redefined. The 12 recorded sites include three artifact scatters and nine lithic scatters . . .*

This information is followed by a detailed description of each newly discovered or re-evaluated site that includes the following details:

- FMSF number and site name
- Site location (Township, Range, and Section)
- Location of site in relation to proposed undertaking (e.g., within existing right-of-way in Segment 1; adjacent to proposed Pond 2C)
- Description of the site environment, including elevation above mean sea level, soil type, local vegetation, nearest fresh water source, and disturbances (e.g., cleared for pasture; underground utilities)
- Means of site discovery (e.g., previously recorded, surface examination, systematic shovel testing at a 25-m interval, informant information, etc.)
- Nature of the cultural resource, including site size (aerial extent), depth of cultural deposit, types and numbers of artifacts recovered, cultural features encountered, site type, and period of site use

- Discussion of site integrity and significance as per *NRHP* eligibility criteria

The following figures and tables are usually included in the archaeological survey results:

- Site location map (USGS quadrangle map) illustrating previously and newly recorded sites, each clearly identified by FMSF number
- Summary table listing recorded sites by site name, FMSF number, location, type, period, *NRHP* eligibility, etc.
- Quadrangle map showing the location of newly discovered sites
- Site sketch of each newly recorded site

The **Survey Results: Historic Resources** section is treated similarly. Describe the number and type of historic resources; briefly categorize them by construction date, present use, Florida Historic Context Categories (found in *Guide to the Historical Structure Form of the Florida Master Site File*), and general physical characteristics of the structures.

### **Example 3. Survey Results: Historic Resources**

*The historic resources survey resulted in the recording and evaluation of 38 buildings along SR 805/Dixie Highway. This figure includes six buildings recorded within the past year by Historic Property Associates. The 38 recorded buildings are primarily commercial. There are 24 private commercial buildings, a governmental building (City Hall), 4 motel/rooming houses, and 9 private residences. Of these, there are 15 Masonry Vernacular and 15 Frame Vernacular buildings, as well as 3 bungalows and 2 Mediterranean Revival structures. The other buildings are isolated examples of American Foursquare, Colonial Revival and Moorish Revival styles.*

Follow the introductory summary with a detailed description of each site, including the information below:

- FMSF number
- Site address
- Architectural style
- Construction date
- Physical description including form, construction material, additions, alterations, and notable features.
- Significance evaluation according to the *NRHP* eligibility criteria

The following figures and tables are usually included in the historic resources survey results:

- Site location map (USGS quadrangle map) illustrating previously and newly recorded sites, each clearly identified by FMSF number
- Summary table listing recorded sites by FMSF number, name of site, address, architectural style, use, date of construction, and *NRHP* eligibility

- Quadrangle map locating each historic resource
- Photograph of each historic resource

**6.1.2.7 Site Evaluations:** This section identifies and discusses the potential *NRHP* eligibility of each archaeological site and historic resource. Graphics are not usually included.

For archaeological sites, prepare a paragraph summarizing the resources recorded or re-evaluated in the survey, i.e., enumerate the resources by FMSF site number, site type, and culture period. Then, provide a brief summary statement identifying those resources not considered eligible for listing in the *NRHP*, and a statement identifying those resources appearing to be eligible. Be sure to include the rationale for this assessment.

#### **Example 4. Archaeological Site Evaluation**

*The archaeological survey resulted in the identification and evaluation of 11 cultural resources, of which one was previously recorded. In general, all are believed to represent the scene of short-term, precontact activities. These commonly occurring sites are evidenced by relatively sparse and mundane artifact assemblages; no buried features or distinctive concentrations of cultural materials were found. Hence, their abilities to yield significant information about precontact occupation of the Tallahassee Red Hills area are considered limited. While they have provided location information of importance to regional settlement pattern studies, continued archaeological investigation at any of these sites is not believed to have the potential to yield additional data of significance to regional prehistory. By these criteria, none of the 11 archaeological sites appear to be eligible for listing in the National Register.*

For historic resources, begin this section with a paragraph summarizing the sites recorded or re-evaluated in the survey, i.e., enumerate resources, construction dates, and architectural styles. Then, provide a brief summary statement identifying those resources not considered eligible for listing in the *NRHP* and why. Next, identify each potentially *NRHP* eligible historic site or district, state the criteria it appears to meet, and provide a brief supporting statement. Finally, remember these resources must be viewed collectively as well as individually.

#### **Example 5. Historic Resource Evaluation**

*The historic resources survey included the evaluation of 38 historic buildings located along SR 805/Dixie Highway. Most of the buildings are typical in style and construction or have been altered considerably, with little architectural significance on their own. In addition, the historic integrity along Dixie Highway has been eliminated due to new construction and the widening of the road through several downtown blocks, therefore negating the possibility for a historic district. Although the potential for a National Register Historic District appears to exist along Lucerne and Lake Avenues, the qualifying portions lie outside (east of) the project corridor. One historic structure, the Lake Worth City Hall is, however, considered potentially eligible for the *NRHP* based on its distinguishing*

*architectural features (NR Criterion C).*

*The Lake Worth City Hall (8PB6259), located at 7 North Dixie Highway, was originally completed in 1934. It is a unique Mediterranean/Moorish Revival style edifice designed by local architect G. Sherman Childs, and financed by Work Progress Administration (WPA) funds . . . Despite the change in function from an auditorium to municipal offices, the building appears to have remained basically unchanged structurally. Due to its unique design, the Lake Worth City Hall is considered potentially eligible for listing in the National Register of Historic Places.*

**6.1.2.8 References Cited:** All references (books, manuscripts, maps, interviews, etc.) cited in the body of the CRAS report are included in the References Cited section. This section may be divided into two parts: Archaeological and Historical. This dual approach permits clear, complete citations for the diverse reference materials used. Adopt a style guide (e.g., *Chicago Manual of Style*), and use it to standardize your citation format.

Be sure each item cited in the body of the report is included in the reference section. During draft review, quality assurance procedures should catch any citations in the report not referenced. Reference and citation omissions are one of the most common report deficiencies, and are easily spotted by FDOT quality assurance reviewers.

**6.1.2.9 Appendices:** Most CRAS reports contain an appendix or appendices that include items such as FMSF forms for archaeological sites and historic resources; *NRHP* Registration forms (referred to as a Request for Determination of Eligibility [DOE]) for potentially eligible historic resources; or a copy of an *NRHP* nomination for previously listed sites within the project area. See Section 6.4 for a discussion of requirements regarding the use of original photographs on historic structures FMSF forms as well as DOE requests in the final CRAS report.

## **6.2 CRAS REPORT FORMAT SPECIFICATIONS**

There are no required standards for report formatting in regard to such considerations as font style and size, margins, or internal organization. Generally, the standard report is 8.5 x 11 inches (with the exception of some figures), is spirally bound, and includes front and back card stock covers. For projects where a large number of sites have been identified, thus requiring the completion of many FMSF forms and possible DOE requests, it may be necessary to prepare separate volumes for the body of the report (Volume 1) and appendices (Volume 2+).

### **6.2.1 Use of Metrics**

As of May 19, 1994 (Memorandum from Leroy Irwin to District Environmental Management Engineers) all environmental documents including CRAS reports will use metric quantity and unit abbreviations with the English quantity and unit abbreviation in parenthesis; e.g., 3.6 m (11.8 ft). Note that periods are not placed after the unit abbreviation.

There are, however, exceptions to the use of metric units of measurement in the CRAS. Do not convert standard English measurement to metric when quoting from historic accounts. For example, do not convert Hamilton Disston's 4 million acre purchase to 10,000 million hectares. Also, it is not necessary to change English units of measurements on maps such as plats, highway maps or Sanborn maps to metric units.

### **6.2.2 Figures and Tables**

CRAS reports typically include tables, figures, photographs, and drawings. While these forms vary, the following information is pertinent:

- Typically, there are two sizes of figures and tables: 8.5 x 11 inches and 11 x 17 inches. These can be used vertically or horizontally in a report. Figure/table legends and project designations usually appear at the bottom of the forms
- Maps include a north arrow and a scale either in the legend or on the map itself
- No company logos appear on figures or tables
- Include accurate citations for all graphics in the legend of each figure or table

## **6.3 ACCOMPANYING DELIVERABLES**

In addition to the CRAS report, a set of original FMSF forms for archaeological sites and historic structures will need to be prepared for submission to FHWA and SHPO, as well as original DOE requests, and a Survey Log Sheet.

### **6.3.1 FMSF Forms**

For FMSF forms, one set of original black and white photographic prints is usually required. These photographic prints can be taken with a traditional 35mm camera or a digital camera with a minimum of 2.5 megapixels (1200 x 600 resolution). The original negative or digital image can be either color or black and white. If the image comes from a 35mm negative, chemical processing and a resin-coated photographic paper should be used to result in a black and white print. If the image comes from a digital camera, laser processing and a resin-coated photographic paper should be used to result in the black and white print. In both 35mm and digital images, the processing lab must be notified that a black and white print is desired (whether the original image is color or black and white). The resin-coated photographic paper in both instances should have a life-span of approximately 70 years.

An "original" black and white photograph consists of a black and white image printed on resin coated paper. It can be printed from either a 35mm negative or a digital image with a minimum of 2.5 megapixels and 1200 x 600 resolution. Both black and white negatives and digital images must be processed at a professional photographic lab. Digital photographs printed on a standard laserjet printer on bond paper are not acceptable.

### 6.3.2 Requests for Determination of Eligibility

For both individual and district DOE request forms, one set of original prints of each photograph are usually required. The original photograph is attached (by plastic coated paper clip) to the original DOE request form. This form will eventually be forwarded to the FMSF office. Copies of the DOE with digital photocopies (1200 x 600 resolution; 2.5 megapixels) are included as an Appendix to the CRAS.

**6.3.2.1 Individual DOE Request:** For an individual DOE request, complete an *NRHP* Registration Form (NPS Form 10-900) according to instructions in [National Register Bulletin 16A](#). Attach the completed FMSF form to its corresponding DOE request (original

FMSF forms with photographs are attached to original DOE request form with photographs).

**6.3.2.2 District DOE Request:** Each contributing structure in a potentially eligible *NRHP* historic district will have its own FMSF number; the district itself will also have an FMSF number. For a district DOE request, complete a [NRHP Registration Form \(NPS Form 10-900\)](#) according to instructions in *National Register Bulletin 16A*. Attach the completed FMSF forms to their corresponding DOE request (original FMSF forms with photographs are attached to original DOE request with photographs).

**6.3.2.3 Individual DOE Request that is also part of a District DOE Request:** Complete an FMSF form, individual DOE request, and district DOE request as previously described. However, when preparing the district DOE request, attach a photocopy of the FMSF form and photocopied photographs of the individual DOE request, indicating on the FMSF form that original photographs are attached to the FMSF form in the individual DOE request. It should be noted that this situation occurs only if the significance of the individual property involved is outside the area(s) and/or period of significance for which the district is considered *NRHP* eligible. This is a very rare situation.

**6.3.2.4 Individually listed *NRHP* structure that is also part of a District DOE Request:** Complete or update an FMSF form on the *NRHP* structure and complete a district DOE request as previously described. Attach the FMSF form to the DOE request form.

### 6.3.3 Survey Log Sheet

The Florida Site File Office requires all submitted manuscripts and survey reports to be accompanied by a Survey Log Sheet (**Exhibit 6.1**). Attach a photocopy of the appropriate USGS quadrangle map showing the project area to the Survey Log Sheet. Mark the location of the project on the USGS map. Submit the Survey Log Sheet with the final report. Blank Survey Log Sheets and instructions can be obtained from the FMSF office in Tallahassee.

## **6.4 CRAS REPORT DISTRIBUTION**

All CRAS reports are submitted in both draft and final forms. Pertinent information concerning required number of copies and path of distribution follows.

### **6.4.1 Draft Report**

The cultural resource consultant submits the draft report to the FDOT Project Manager, along with the following items:

- Two photocopies of the draft CRAS report (before submitting the draft, check the contract, sometimes more than two photocopies are required)

- Original FMSF forms with original photographs (attached by plastic-coated paper clips)
- Original DOE request package(s) with original photographs (if applicable)

Following review by the FDOT Project Manager, the corrected draft is returned for revisions, and then resubmitted to the Department as the final report.

#### **6.4.2 Final Report**

The cultural resource consultant submits the final report to the FDOT Project Manager, along with the following items:

- Six bound reports (including appendices) with digital photographs (1600 x 1200 resolution; 2.0 megapixels)
- Three photocopies of reports with photocopied photographs (before submitting the final report, check the contract, sometimes more than three photocopies are required)
- Original FMSF forms with original black-and-white, 4" x 6" photographs (attached with plastic coated paper clips)
- Original DOE package(s) with original photographs (if applicable)
- Original Survey Log Sheet with map

The FDOT Project Manager then submits two bound copies, one set of original FMSF forms with photographs, original DOE requests with photographs (where applicable), and one completed Survey Log Sheet to the FHWA, along with a letter of transmittal. FHWA will then submit to SHPO, and the FMSF office. For projects with no FHWA involvement, the FDOT Project Manager or DEMO submits this package directly to the SHPO.

#### **6.4.3 Letters of Transmittal**

The standard letter of transmittal from the DEMO to FHWA, which accompanies the CRAS report package, should contain the following pertinent information:

- Reference the project by name; location; and state project, work program item, and federal-aid project numbers
  - Describe the attachments (i.e., two bound copies of the final report, etc.)
  - Provide summary of survey findings, including the number of cultural resources found
  - Identify all cultural resources considered potentially eligible for listing in the *NRHP*
  - Request conveyance of report and documentation (FMSF forms and DOE requests) to SHPO
  - Cite regulatory requirements for the assessment survey
  - Request FHWA evaluation of *NRHP* eligibility for the identified resources
- A sample letter is included as **Exhibit 6.2**.

## 6.5 TECHNICAL MEMORANDA

Some classes of action require only minimal cultural resource involvement. Among these are most proposed pond and wetland mitigation siting studies that are performed during the project design phase, after the PD&E study has been completed. The prior performance of a cultural resource assessment survey during the project development phase should have resulted in a detailed CRAS report for the project area. Such a document, which includes relevant background information synthesized in environmental, archaeological and historical overviews, should be referenced without being repeated during the pond siting study.

Some classes of action where cultural resources may not be an important issue include milling and resurfacing projects, and re-evaluations.

The Technical Memoranda documenting these minimal cultural resource assessment survey efforts include the following information:

- Project name and location
- State project number, work program item number, and federal-aid project number (if applicable)
- Introductory information including who performed the survey and when; the Township, Range, and Section coordinates for the project area(s); the purpose of the survey; and the research and fieldwork methods
- Results of background research, including a description of previously recorded sites within or adjacent to the APE
- Survey expectations vis-à-vis site location potential
- Field survey findings (archaeological and historic resources), including a description of each site identified and evaluation of site significance as per the *NRHP* criteria of eligibility
- Conclusions and recommendations
- References cited
- Completed FMSF forms

The cultural resource consultant submits two photocopies of the draft Technical Memorandum (or the number required in the Scope of Services), along with any original FMSF forms and original DOE requests to the FDOT Project Manager for review. Six copies of the final Technical Memorandum (with appropriate digital photographs), are submitted along with the Survey Log Sheet, a set of original FMSF forms, and original DOE request(s), if applicable. The transmittal procedures from DEMO to FHWA or SHPO follow those outlined in Section 6.4.3.

## 6.6 FEATURED HYPERLINKS

Florida's Historic Context

[http://dhr.dos.state.fl.us/bar/hist\\_contexts/comp\\_plan.pdf](http://dhr.dos.state.fl.us/bar/hist_contexts/comp_plan.pdf)

Florida DHR's Historic Preservation Compliance Review Program Guide

<http://dhr.dos.state.fl.us/bhp/compliance/>

National Register Bulletin 16A: How to Complete the National Register Registration Form

<http://www.cr.nps.gov/nr/publications/bulletins/nrb16a/>

NRHP Criteria of Eligibility

[http://www.cr.nps.gov/nr/publications/bulletins/nrb15/nrb15\\_2.htm](http://www.cr.nps.gov/nr/publications/bulletins/nrb15/nrb15_2.htm)

NRHP National Registration Form

<http://www.cr.nps.gov/nr/publications/forms.htm>

PD&E Manual

<http://www.dot.state.fl.us/emo/pubs/pdeman/pdeman.htm>

**EXHIBIT 6.1**  
**EXAMPLE SURVEY LOG SHEET**

|                     |
|---------------------|
| FMSF USE ONLY       |
| FMSF Survey # _____ |

Form Date April 1995

# Survey Log Sheet

Florida Master Site File  
Version 2.0 9/97

Consult *Guide to the Survey Log Sheet* for detailed instructions.

Recorder of Log Sheet Ima Digger

## Identification and Bibliographic Information

Survey Project (Name and project phase) Cultural Resource Assessment Survey, Central Florida GreeneWay  
Seminole County Expressway/I-4 Project, Seminole County

Is this a continuation of a previous project?  No  Yes Previous survey#(s) \_\_\_\_\_

Report Title (exactly as on title page) Technical memorandum RE: Cultural Resource Assessment Survey  
Central Florida GreeneWay (Seminole County Expressway)/I-4 Project, Seminole County

Report Author(s) (as on title page-individual or corporate) \_\_\_\_\_

Ima Digger

Publication Date (month/year) April 1995 Total Number of Pages in Report (Count text, figures, tables, not site forms) 12 + FSF

Publication Information (if relevant, series and no. in series, publisher, and city. For article or chapter, cite page numbers. Use the style of *American Antiquity*. See *Guide to the Survey Log Sheet*.) The CR Group, Inc.

Supervisor(s) of Fieldwork (whether or not the same as author[s]) Ima Digger, T. Pills/S. Medrev, H. Dogtrot

Affiliation of Fieldworkers (organization, city) The CR Group, Inc.

Key Words/Phrases (Don't use the county, or common words like *archaeology, structure, survey, architecture*. Put the most important first. Limit each word or phrase to 25 characters.) Seminole Expressway, proposed ponds, cultural resource  
assessment survey

Survey Sponsors (corporation, government unit, or person who is directly paying for fieldwork)

Name Florida Department of Transportation, District 5

Address/Phone 719 S. Woodland Blvd., Deland, Florida 32720-6800

## Mapping

Counties (List each one in which field survey was done-do not abbreviate) Seminole County

USGS 1:24,000 Map(s): Names/Dates: Sanford, Fla. 1965, PR 1988

Remarks (Use supplementary sheet[s] if needed) 3 archaeological sites found within proposed ponds; one historic  
structure found along proposed express-way corridor

## Description of Survey Area

Dates for Fieldwork: Start 3/95 End 3/95 Total Area Surveyed (fill in one) \_\_\_\_\_ hectares \_\_\_\_\_ acres

Number of Distinct Tracts or Areas Surveyed \_\_\_\_\_

If Corridor (fill in one for each) Width 400 meters \_\_\_\_\_ feet Length 6 kilometers \_\_\_\_\_ miles

Types of Survey (check all that apply)  archaeological  architectural  historical/archival  underwater  other: \_\_\_\_\_

## Survey Log Sheet of the Florida Master Site File

### Research and Field Methods

**Preliminary Methods** (Check as many as apply to the project as a whole. If needed write others at bottom).

- |   |   |  |   |
|---|---|--|---|
| <input type="checkbox"/> Florida Archives (Gray Building)       | <input type="checkbox"/> library research - ( <i>local public</i> )       | <input type="checkbox"/> local property or tax records | <input checked="" type="checkbox"/> windshield survey |
| <input type="checkbox"/> Florida Photo Archives (Gray Building) | <input type="checkbox"/> library-special collection- ( <i>non local</i> ) | <input type="checkbox"/> newspaper files               | <input type="checkbox"/> aerial photography           |
| <input type="checkbox"/> FMSF site property search              | <input type="checkbox"/> Public Lands Survey (maps at DEP)                | <input checked="" type="checkbox"/> literature search  |   |
| <input checked="" type="checkbox"/> FMSF survey search          | <input type="checkbox"/> local informant(s)                               | <input type="checkbox"/> Sanborn Insurance maps        |   |
| <input type="checkbox"/> other (describe) _____                 |   |  |   |

**Archaeological Methods** (Describe the proportion of properties at which method was used by writing in the corresponding letter. Blanks are interpreted as "None.")

F(-ew: 0-20%, S(-ome: 20-50%); M(-ost: 50-90%); or A(-ll, Nearly all: 90-100%). If needed write others at bottom.

Check here if NO archaeological methods were used.

- |   |  |                                       |
|---|--|---------------------------------------|
| ___ surface collection, controlled                  | ___ other screen shovel test (size: _____) | ___ block excavation (at least 2x2 m) |
| <u>A</u> surface collection, uncontrolled           | ___ water screen (finest size: _____)      | ___ soil resistivity                  |
| <u>A</u> shovel test-1/4" screen                    | ___ posthole tests                         | ___ magnetometer                      |
| ___ shovel test-1/8" screen                         | ___ auger (size: _____)                    | ___ side scan sonar                   |
| ___ shovel test-1/16" screen                        | ___ coring                                 | ___ unknown                           |
| ___ shovel test-unscreened                          | ___ test excavation (at least 1x2 m)       |                                       |
| <u>A</u> other (describe): <u>pedestrian survey</u> |  |                                       |

**Historical/Architectural Methods** (Describe the proportion of properties at which method was used by writing in the corresponding letter. Blanks are interpreted as "None.")

F(-ew: 0-20%, S(-ome: 20-50%); M(-ost: 50-90%); or A(-ll, Nearly all: 90-100%). If needed write others at bottom.

Check here if NO historical/architectural methods were used.

- |                            |                                   |                        |                      |
|----------------------------|-----------------------------------|------------------------|----------------------|
| ___ building permits       | ___ demolition permits            | ___ neighbor interview | ___ subdivision maps |
| ___ commercial permits     | <u>A</u> exposed ground inspected | ___ occupant interview | ___ tax records      |
| ___ interior documentation | ___ local property records        | ___ occupation permits | ___ unknown          |
| other (describe): _____    |                                   |                        |                      |

**Scope/Intensity/Procedures** Background research; archaeological reconnaissance and excavation of 214 shovel tests at 25, 50, and 100 m intervals. Shovel tests = 0.5 m diam. x 1 m deep; 1/4" mesh; judgmental shovel tests to bound

### Survey Results (cultural resources recorded)

Site Significance Evaluated?  Yes  No If Yes, circle NR-eligible/significant site numbers below.

Site Counts: Previously Recorded Sites 0 Newly Recorded Sites 4

Previously Recorded Site #'s (List site #'s without "8." Attach supplementary pages if necessary) \_\_\_\_\_

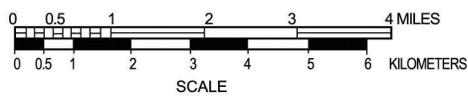
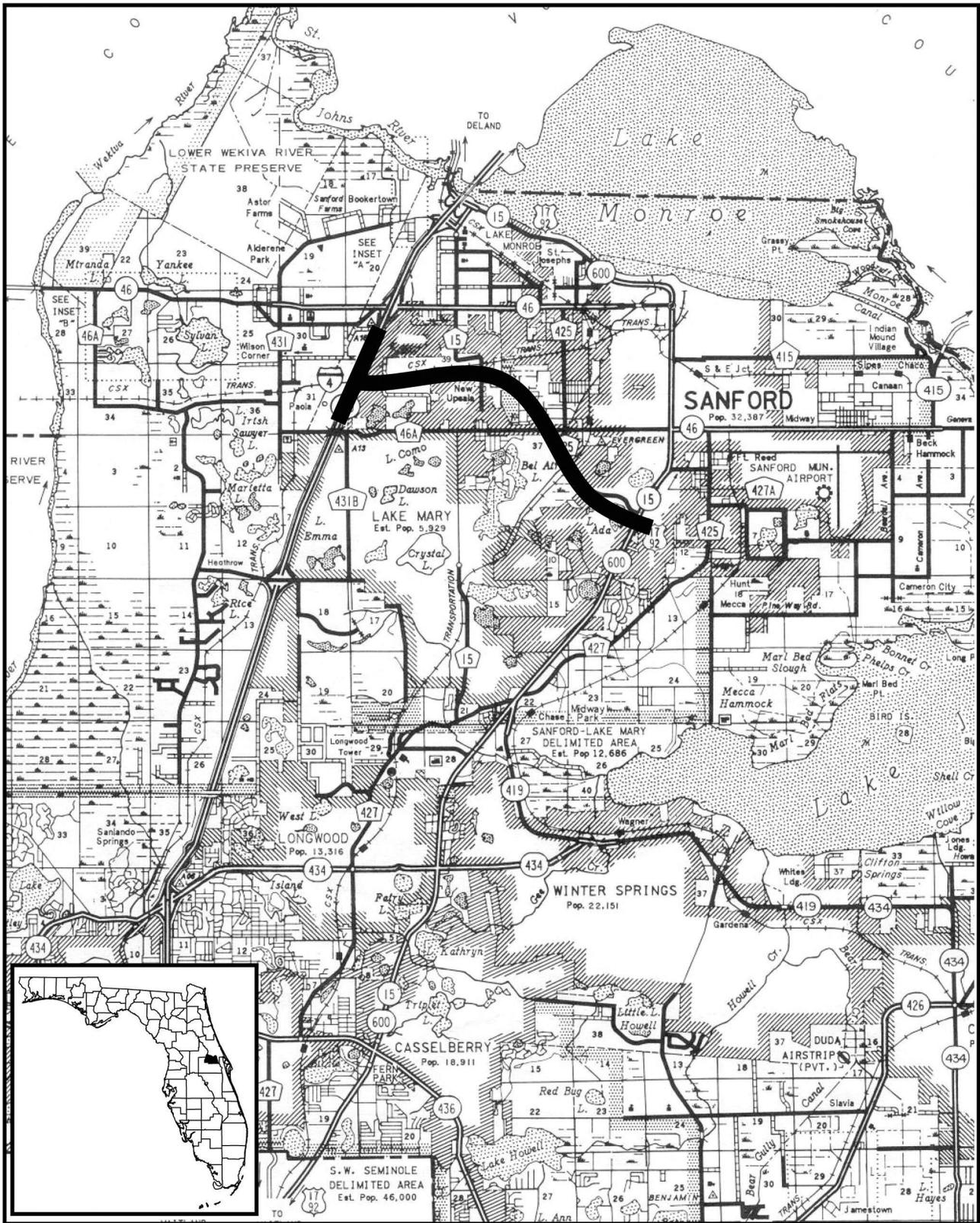
Newly Recorded Site #'s (Are you sure all are originals and not updates? Identify methods used to check for updates, ie, researched the FMSF records). List site #'s without "8." Attach supplementary pages if necessary. SE1658, SE1659, SE1660, SE1661

Site Form Used:  SmartForm  FMSF Paper Form  Approved Custom Form: Attach copies of written approval from FMSF Supervisor and Supervisor-signed form.

|   |   |
|---|---|
| <b>DO NOT USE *****SITE FILE USE ONLY *****DO NOT USE</b>   |   |
| <b>BAR Related</b><br><input type="checkbox"/> 872 <input type="checkbox"/> 1A32<br><input type="checkbox"/> CARL <input type="checkbox"/> UW | <b>BHP Related</b><br><input type="checkbox"/> State Historic Preservation Grant<br><input type="checkbox"/> Compliance Review CRAT # _____ |

**ATTACH PLOT OF SURVEY AREA ON PHOTOCOPIES OF USGS 1:24,000 MAP(S)**

# HIGHWAY MAP Seminole County



**EXHIBIT 6.2**  
**EXAMPLE LETTER OF TRANSMITTAL**  
**FROM DEMO TO FHWA (which accompanies the CRAS**  
**Report package)**

District Environmental  
Management Office  
Post Office Box 1249  
Bartow, Florida 33831-1249  
(813) 533-8161  
May 30, 2002

[Name]  
Division Administrator  
Federal Highway Administration  
227 North Bronough Street  
Tallahassee, FL 32301

RE: Cultural Resource Assessment Survey  
Interstate 4 (I-4)  
From just West of Memorial Boulevard to the Polk/Osceola County Line  
State Project Number 16320-1402  
Work Program Item 1147948  
Federal Aid Project Number ACDH-4-1(130)25  
Polk County

Dear [Name]:

Attached is the completed Cultural Resource Assessment Report for the I-4 PD&E, Polk County. The following documents are attached:

- Two bound copies of the CRAS Final Report, one with original photographs (for SHPO);
- One set of original Florida Master Site File forms with labeled original photographs (loose);
- One completed Survey Log Sheet.

The field work was conducted in accordance with the Department's PD&E Manual and following the research plan and field methodology previously approved for this project. As a result of this survey, a total of nine (9) historic resources and twenty-three (23) archaeological sites were recorded and evaluated for historical significance according to the criteria established by the *National Register of Historic Places (NRHP)*. The majority of historic resources are simple Frame vernacular style residences, a type common to the area. The archaeological sites include lithic and artifact scatters, and a few single artifact sites. Neither the historic resources nor the archaeological sites were considered to be eligible for listing in the *NRHP*.

[Name]  
May 30, 2002  
Page 2

Please process the attached report with original photographs and accompanying documentation to the State Historic Preservation Officer (SHPO). The second copy of the report is for your files.

This information is being provided in accordance with the provisions of the National Historic Preservation Act of 1966 (as amended), which are implemented by the procedures contained in 36 CFR. Part 800, as well as the provisions contained in the revised Chapter 267, F.S.

Subsequent to your review, we are requesting an opinion as to the eligibility of these identified resources for listing in the *National Register of Historic Places (NRHP)* and your concurrence that no historic properties will be affected by the proposed improvements to I-4.

If you have any questions or if I may be of assistance, please contact me at (813) 533-8161 or SC 557-2389.

Sincerely,

C. O. Morgan, P.E.  
District Environmental  
Management Engineer

xc: Kim Warren, DEMO-District One

**CHAPTER 7**  
**DETERMINATION OF EFFECTS AND THE**  
**PREPARATION OF AGREEMENT DOCUMENTS**

*Public involvement and consultation are key elements intended to be ongoing throughout the four steps of the revised Section 106 process. The type of public involvement will depend upon various factors, including the nature and complexity of the undertaking, the potential impact, the historic property, and the likely interest of the public in historic preservation issues. Refer to Chapter 2 for an overview of the Section 106 process and a list of participants.*

**CHAPTER 7**  
**DETERMINATION OF EFFECTS AND THE**  
**PREPARATION OF AGREEMENT DOCUMENTS**

**7.0 OVERVIEW**

Under the revised Section 106 regulations, the old determination of effects step is combined with the identification of historic properties. Therefore, the identification of historic properties is closed by making and documenting a formal finding of either: 1) *no historic properties affected* or 2) *historic properties affected*.

If the [FHWA](#) determines (through a consensus determination with the [SHPO](#) or a determination by the Keeper of the *National Register of Historic Places [NRHP]*) that no historic properties are present in the APE or that there are historic properties present but the undertaking will not have any effect upon them, it provides a finding of **No Historic Properties Affected** along with documentation to the SHPO/THPO and any other consulting parties. Then, barring any objection within 30 days of each parties receipt of the findings, the FHWA proceeds with its undertaking.

If *NRHP*-listed or eligible properties have been identified within the established APE and the FHWA determines that the proposed activity may affect the historic resources in any way, the FHWA, in consultation with SHPO and any other consulting parties, must find that **Historic Properties are Affected** and initiate Step 3 of the Section 106 process, [Assessing Adverse Effects \(36 CFR Part 800.5\)](#).

Step 3 begins with FHWA (or [FDOT](#) as an agent of FHWA), in consultation with the SHPO and any other consulting parties, making an assessment of adverse effects on the identified historic properties. Their evaluation of effects is based on the Criteria of Adverse Effect found in the Advisory Council's regulations ([36 CFR Part 800.5](#)). FHWA/FDOT must consult with SHPO and any Native American tribe that attaches religious and cultural significance to a property. FHWA must also consider the views provided by other consulting parties and the public.

As a general rule, effects are not discussed in the CRAS, but in the **case report** that follows the CRAS, when required. The case report is used to provide the consulting parties with all pertinent information to reach one of the two possible findings outlined in the revised regulations (*no historic properties affected* or *historic properties affected*) and to assess adverse effects. The case report therefore provides documentation and demonstration of effects and outlines strategies for avoidance, minimization, or mitigation of any effects. It also leads to the final step in the Section 106 process: [Resolving Adverse Effects \(36 CFR Part 800.6\)](#). Although the language relating to the determination of effects is substantially changed in the revised Section 106 regulations, the FDOT process remains essentially unchanged.

The assessment of effects often begins with a coordination meeting attended by representatives of FDOT, FHWA, SHPO, and others (who may include Native American tribes, permit or license applicants, local governments, and members of the public), as necessary. The purpose of

this meeting is: 1) to determine the extent of the undertaking in relation to the historic and archaeological resources located within the project APE, 2) to determine requirements for the case report, and 3) to discuss possible alternatives to avoid or reduce impacts to the *NRHP*-listed or eligible properties.

This handbook chapter begins with a look at the review of project alternatives documented in the case report. Next, definitions of the Criteria of Adverse Effect and guidelines for their application and documentation are examined. Following a discussion of the final steps in the Section 106 process, three types of agreement documents are examined: the no adverse effect (NAE) Determination, the Memorandum of Agreement (MOA), and the Programmatic Agreement (PA).

The following sections are covered in this chapter:

| SECTION | CONTENTS                             | PAGE |
|---------|--------------------------------------|------|
| 7.1     | Section 106 Consultation Case Report | 7-3  |
| 7.2     | Determining Effects                  | 7-5  |
| 7.3     | Completing the Section 106 Process   | 7-10 |
| 7.4     | Preparing Agreement Documents        | 7-12 |
| 7.5     | Featured Hyperlinks                  | 7-15 |

## 7.1 SECTION 106 CONSULTATION CASE REPORT

### 7.1.1 Introduction

After the identification and evaluation process (documented in the CRAS Report), and prior to the formal determination of effects, all the alternatives established during development of the specific transportation project are reviewed in relation to their potential impact to identified properties listed in or eligible for inclusion in the *NRHP*. Participants in this review process include FHWA, SHPO, and FDOT (and their consultants, if applicable). In addition, the FHWA must consider views provided by any of the other consulting parties (e.g., appropriate local governments) and the public. Among the factors assessed are access (pedestrian and vehicular), noise, landscaping, usage of property, right-of-way needs, and visual/aesthetic qualities. The means of presenting this information on potential impacts to significant historic properties is through preparation of a case report. This is often performed by a consultant working on behalf of the FDOT.

The case report presents all available documentation pertaining to the significance and characteristics of the *NRHP*-listed or eligible property(ies) as well as a discussion of any and all effects that the agency’s proposed undertaking may have on the property(ies). It is important to demonstrate the proposed undertaking’s relationship to the historic property(ies) being evaluated. The case report also includes a description and evaluation of all potential alternatives considered by FDOT and FHWA in order to avoid or minimize impacts to the property(ies), including the no-build alternative. By having a solid base of information, the consulting parties are able to evaluate the potential effects on *NRHP*-listed or eligible resources and determine what, if any, mitigation measures should be taken.

The case report serves as the preliminary documentation for determining potential effects and mitigation measures, and is used if the proposed undertaking is determined to have an adverse effect on the *NRHP*-listed or eligible property(ies). In addition, information in the case report may also be incorporated into future agreement documents, such as a Memorandum of Agreement (MOA) or a Programmatic Agreement (PA). Furthermore, the case report serves as the Advisory Council's project impacts review assessment when necessary.

***For 100% state-funded highway improvement projects, the procedures are the same as for federally aided projects, except that the FHWA and the Advisory Council on Historic Preservation are not involved. All eligibility and effect determinations and document reviews are coordinated only with the SHPO.***

### 7.1.2 Components of the Case Report

Typically, the case report provides the following information:

- A general description of the transportation-related project, including its necessity and benefits. The description of the project also discusses the various project alternatives that have been proposed.
- A context description for evaluating *NRHP*-listed or eligible precontact and historic resources. This context is generally presented as a description of the physical, environmental, and cultural settings.
- Identification of the *NRHP*-listed or eligible property(ies) that may be affected by the project, i.e., those included in the established APE. This can be a summary of the physical description (present and historic) as well as areas of significance, as presented in the *NRHP* Nomination form or DOE Request form. Include an original form in the Appendix of the case report.
- A description of proposed project alternatives and an analysis of each, often combined with the use of an evaluation matrix table as described below. Include all possible alternatives considered that would avoid or minimize any potential adverse effect to the *NRHP*-listed or eligible property(ies). Show evidence of “a good faith effort” by FDOT and FHWA to evaluate alternatives by giving a full description of each, not simply stating that an alternative was considered and determined not to be feasible. Always include an evaluation of the no-build alternative as a point of reference for evaluating the other proposed alternatives. Sometimes the no-build alternative becomes the preferred alternative.

The alternatives analysis not only addresses *NRHP*-listed or eligible properties but also includes numerous factors studied in the PD&E phase. These are often presented in an evaluation matrix table. Some of the factors are listed as follows,

but there may be other considerations as well: project length in miles, right-of-way acreage, drainage/mitigation right-of-way, construction and right-of-way costs, preliminary engineering costs, wetland mitigation costs, number of required relocations (residents and business occupants), wetland impacts, floodplain crossing, threatened or endangered species, noise impacts, air quality impacts, and hazardous materials and petroleum impacts.

- A description of the preferred alternative and reasons why this one was selected. Present this in a narrative and visual format. Show also the physical relationship of the preferred alternative to all *NRHP*-listed and eligible properties. This is often presented through the use of aerial photographs or site plans depicting: 1) *NRHP* boundaries for the property, 2) location of *NRHP* contributing structures or objects on the property and other significant features such as landscaping, roads or paths, 3) existing right-of-way alignment, and 4) proposed right-of-way alignment.

There may be additional design alternatives for the preferred alternative. They should be presented in the case report for evaluation, both in a narrative and visual format. These alternatives may pertain to lane widths, number of lanes, buffer zone designs, etc. and may eventually be included in the agreement documents as a mitigation measure.

- A discussion of potential effects each property may encounter due to the proposed undertaking, based on the preferred alternative. Apply this discussion of potential effects to several design alternatives for the preferred alternative, as described above, in order to adequately compare proposed effects caused by different design alternatives.
- A description of the preservation measures that are proposed in order to avoid adverse effects, or the reasons why avoidance of adverse effects are not possible and a discussion of proposed mitigation measures for any adverse effects. These issues are also summarized at the end of the case report in the conclusions section.

The case report is generally presented in a bound report format, but other formats may be selected depending on the type of project and potential effects that are to be evaluated. Additional formats could include videotapes and/or computer generated graphics used to depict the proposed changes and effects. Graphics within the report format, such as photographs and maps, are important tools to supplement the narrative material.

## 7.2 DETERMINING EFFECTS

*Determining effect means applying the Criteria of Adverse Effect to identified historic properties (those listed or considered eligible for listing in the NRHP), in consultation with the SHPO and other consulting parties.*

The assessment of effects is the responsibility of the FHWA, with the FDOT gathering the information; consultation with the SHPO and other consulting parties is then required. Using the information provided in the case report, the FDOT, FHWA, SHPO and other consulting parties should be able to determine whether historic properties will be affected and, if so, whether or not these effects represent adverse effects on one or more *NRHP*-listed or eligible properties. Reaching this determination is a two-stage process. The first step is to determine whether or not there will be an effect at all, and then the second is to determine if that effect will be adverse or not adverse.

### 7.2.1 Considering the Effects

A project is considered to affect historic properties whenever the undertaking may alter the characteristics of a property that may qualify that property for inclusion in or eligibility for the *NRHP*. For the purposes of determining effect, alteration to features of the property's location, setting, or use may be relevant depending on a property's significant characteristics and should be considered.

***Remember, the revised regulations state that there are now two potential findings at the conclusion of the second step of the Section 106 process: no historic properties affected and historic properties affected. No historic properties affected means either: 1) there are no historic properties present in the APE or 2) there are historic properties present, but the project will not affect them. Thus, the former findings of "no significant resources present" and "no effect" are now combined into no historic properties affected.***

If the FHWA finds that **no historic properties are present or affected**, it provides documentation to the SHPO and any other consulting parties and barring any objection in 30 days, proceeds with its undertaking. If there are no objections, the Section 106 process is completed for the project (36 CFR Part 800.5[b]). Typically, the SHPO will respond by letter in a timely fashion. A determination of no historic properties affected does not require the preparation of an agreement document.

The documentation of a finding of no historic properties affected includes the following information, as specified in [36 CFR 800.11\(d\)](#):

1. A description of the undertaking that specifies the federal involvement and APE, including photographs, maps, and drawings, as needed,
2. A description of the steps taken to identify historic properties, including, as appropriate, efforts to seek information according to the standards set forth in [36 CFR Part 800.4 \(b\)](#) are outlined in Chapter 3 of this Handbook
3. The basis for determining that no historic properties are affected or present

If the undertaking is found to have an **effect**, FHWA and FDOT, in consultation with the SHPO, must determine whether or not the effect is adverse. In order to do this, they apply the Cri-

teria of Adverse Effect, as defined in [36 CFR Part 800.5 \(a\)](#).

### **7.2.2 Applying the Criteria of Adverse Effect**

The revised regulations retain the basic concept that an adverse effect occurs when the integrity of a property is diminished. The Advisory Council also refined the criteria and clarified that direct and indirect effects as well as reasonably foreseeable effects (cumulative, later in time, or at a distance) must be included and that all qualifying characteristics of the property must be considered.

*An adverse effect is found when the undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for listing in the NRHP. It is considered an adverse effect when the effect on a historic property may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.*

Adverse effects on historic properties include, but are not limited to the following (36 CFR Part 800.5[a]):

1. *Physical destruction, damage, to all or part of a property*
2. *Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's standards for the treatment of historic properties ([36 CFR Part 68](#)) and applicable guidelines*
3. *Removal of the property from its historic location*
4. *Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance*
5. *Introduction of visual, audible, or atmospheric elements that diminish the integrity of the property's significant historic features*
6. *Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a religious and cultural significance to an Indian tribe*
7. *Transfer, lease, or sale of the property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance*

### 7.2.3 Determination of No Adverse Effect

A determination of **no adverse effect** (NAE) may be made when the effects of the transportation project are not judged to be harmful to those characteristics that qualify the historic property(ies) for inclusion in the *NRHP*. Sometimes a potentially adverse effect can be minimized or mitigated by conditions outlined in an Agreement-based Determination of no adverse effect.

*In consultation with the SHPO or other consulting parties, the FHWA can propose an NAE with or without conditions. The FHWA must seek Advisory Council review in the event of a disagreement among the consulting parties with the finding.*

When FHWA and FDOT make the determination of no adverse effect, they must notify, provide documentation to, and obtain concurrence from the SHPO and the other consulting parties, as appropriate. This concurrence is usually given in the form of a letter. As specified in [36 CFR 800.11 \(e\)](#), the following information must be provided in the NAE documentation:

1. *A description of the undertaking, specifying federal involvement and APE, including photographs, maps, and drawings, as necessary*
2. *A description of the steps taken to identify historic properties*
3. *A description of historic properties that may be affected by the undertaking, including information on the characteristics that qualify them for the National Register*
4. *A description of the undertaking's effect on historic properties*
5. *An explanation of why the Criteria of Adverse Effect were found inapplicable or applicable, including any conditions or future actions to avoid, minimize, or mitigate adverse effect*
6. *Copies of summaries of any views provided by consulting parties and the public*

For a conditional NAE, the specific measures that will be taken to minimize or mitigate impacts to historic properties must also be outlined.

If the SHPO agrees with the finding, the FHWA may proceed with the undertaking in accordance with Sec 800.5(d)(1). If the SHPO does not respond within 30 days from receipt of the finding, the FHWA may proceed. In other words, the FHWA has afforded the SHPO a reasonable opportunity to comment on the undertaking and its effects upon historic resources.

If all parties agree with the NAE finding, the Section 106 process ends and the undertaking may proceed.

Under the revised regulations, the Advisory Council does not review a NAE finding. The Advisory Council will be involved only if the FHWA requests its involvement to resolve a dispute or if their involvement is requested by one of the other consulting parties or if the Advisory Council seeks involvement due to the importance of a particular resource or project. Native American tribes may request Advisory Council involvement, but must do so within the 30-day review period and clearly specify the reason for the disagreement ([36 CFR 800.5](#)). If involved, the Advisory Council will review the findings and notify the FHWA of its determination within 15 days. No response within this time period equals concurrence.

#### 7.2.4 Determination of Adverse Effect

A FHWA/FDOT undertaking may be determined to adversely affect an *NRHP*-listed or eligible resource by diminishing the integrity of such characteristics that qualify the property for inclusion in the *NRHP*. Numerous situations may cause different types of **adverse effects**. The undertaking may directly and physically impact the resource by taking all or part of its property. The undertaking may also impact the resource in other ways, both directly and indirectly, by affecting any or all of the following:

- Visual and/or aesthetic qualities (including views to or from the property)
- Noise levels
- Landscaping
- Usage of the property
- Access (such as vehicular and pedestrian entrance ways to the property)
- Right-of-way needs
- Parking
- Economics
- Traffic volumes
- Vibration levels
- Air quality

While all of the above factors need to be considered, as required by law, some are, by their nature, likely to have more of an effect/impact than others. *For example:*

1. *A new state highway is constructed next to a historic hotel. Even though the highway does not traverse the hotel's property, there would be a visual effect caused by the road obstructing or in some way changing the view from and toward the hotel. The traffic on the road would increase the noise and might also affect the vibration level and air quality. Assuming the road provided better access to the hotel, the economic effects might be beneficial. The streetlights might illuminate part of the hotel, which could be considered either adverse (harmful) or beneficial. If signs are built next to the highway, they might block or intrude on a view to or from the hotel.*
2. *A new road may provide better access to a previously unknown archeological site, thereby increasing the potential for vandalism. Ditching may alter local drainage patterns, which may in turn affect the preservation potential of buried faunal and*

*floral material. A road through a mound complex may avoid significant archeological deposits and features, but it may adversely affect the scenic vista of the site.*

Visual effects are one of the more critical impacts and also are generally the easiest to demonstrate. Where feasible, use graphic models to predict visual effects. One of the most effective graphic tools is to compare a photograph of the present condition to a graphic (such as an artist's rendering or a manipulated photograph using manual or computer drafting techniques) of the proposed condition without any mitigation, and a similar graphic of the proposed condition with mitigation. If a project area contains many *NRHP*-listed or eligible resources, several views will be needed. For large projects, particularly if they impact an *NRHP*-listed or eligible historic district, computer-generated images used for print, slide or video presentations may be the most effective way to demonstrate visual impacts.

If a project is found to have an adverse effect on one or more *NRHP*-eligible properties, the FHWA and the FDOT, in consultation with the SHPO, THPO, other consulting parties, and (when necessary) the ACHP, must seek ways to avoid or lessen the effects on these resources. They will develop these strategies as part of the final step (Step 4) in the Section 106 process.

### **7.3 COMPLETING THE SECTION 106 PROCESS: RESOLVING ADVERSE EFFECTS CONSULTATION, COUNCIL COMMENT, AND PROCEED**

#### **7.3.1 Step 4: Resolving Adverse Effects**

If FHWA finds that **historic properties are adversely affected** (or if the parties cannot agree and the council determines within 15 days that there is an adverse effect) FHWA continues consultation with the SHPO and other appropriate parties, including Native American tribes. Other interested parties, such as the head of local governments and owners of affected lands, may be invited to participate in the consultation, when appropriate. In addition to involving interested persons in consultation, FHWA must provide an opportunity for members of the public to receive information and express their views about preservation issues pertinent to the undertaking.

The objective of the consultation is to develop and evaluate alternatives or modifications to the project that avoid, minimize, or mitigate adverse effects on historic properties.

The Advisory Council is notified by FHWA of the adverse effect finding by providing the following documentation as specified in 36 CFR 800.11(e):

1. *A description of the undertaking, specifying the federal involvement and the project APE, including photographs, maps, and drawings, as necessary*
2. *A description of the efforts to identify historic properties*
3. *A description of the affected historic properties, including information on the characteristics that qualify them for the National Register*
4. *A description of the undertaking's effect on historic properties*
5. *An explanation of why the criteria of adverse effect were found applicable, includ-*

- ing any conditions or future actions to avoid, minimize, or mitigate adverse effect*
6. *Copies or summaries of any views provided by consulting parties and the public*

***NOTE: Under the revised regulations, Advisory Council involvement is not needed in many adverse effect cases. MOA's can now be negotiated and finalized without Council involvement.***

The documentation provided to the Council must include an invitation to participate in the consultation when:

1. The FHWA requests their participation
2. The project adversely effects a National Historic Landmark or
3. A programmatic agreement will be prepared

Additionally, any one of the consulting parties, including the appropriate Native American tribe, may independently request Advisory Council participation in the consultation process.

Upon receipt of a request to consult, the Advisory Council has 15 days to respond. When entering the process, the Advisory Council must document that the criteria for Council involvement are met and advise the FHWA of its decision to participate.

If the Council decides not to participate, the FHWA continues with consultation and the preparation of a Memorandum of Agreement (MOA). The MOA is written in consultation with the SHPO, Native American tribes and other consulting parties and a copy of the executed MOA is submitted to the Advisory Council and the Section 106 process is complete.

### **7.3.2 Failure to Resolve Adverse Effects**

If FHWA, SHPO, and consulting parties cannot reach an agreement, the FHWA will request the Advisory Council to join the process and provide the following documentation ([36 CFR 800.11\[g\]](#)):

1. *Description and evaluation of any alternatives or mitigation measures proposed to resolve the adverse effect*
2. *Description of any reasonable alternatives or mitigation measures considered but not chosen and the reasons for their rejection*
3. *Copies of summaries of any views submitted to the agency official concerning the adverse effects and alternatives to reduce or avoid these effects*
4. *Any substantive revision or additions to any previously submitted documentation*

Upon receipt of the request and documentation, the Advisory Council must respond within 45 days unless otherwise agreed.

When consultation has been terminated without agreement and no MOA is produced, FHWA may request the ACHP to provide written comments. In making such a request, FHWA provides the Council with specific documentation, as specified in [36 CFR 800.8\(d\)](#). In these cases, the Council may require an on-site inspection and a public meeting in order to adequately review the project effects. Written Council comments are issued directly to the head of FHWA.

Once the Council has commented by executing or accepting the MOA, FHWA proceeds with the undertaking, following the terms of the MOA. In the absence of an MOA, FHWA must take into account the Council's written comments and then make a final decision about how (or whether) to proceed with its undertaking. FHWA notifies the Council of its decision, before work on the undertaking begins, if possible. In both cases, the Section 106 process has been concluded and the FHWA statutory responsibilities are satisfied.

## 7.4 PREPARING AGREEMENT DOCUMENTS

### 7.4.1 Introduction

The consulting parties generally can agree on ways to accommodate historic preservation concerns as the undertaking proceeds. The decisions arrived at during the consultation process are defined in some form of an agreement document. This is a legal document that obligates the signing parties to carry out its terms. In transportation projects, an agreement document outlines FHWA's fulfillment of responsibilities under Section 106. It shows that the agency has taken into account the effects on *NRHP*-listed or eligible properties and has given the ACHP a reasonable opportunity to comment. There are three kinds of agreement documents that are mentioned as part of [36 CFR Part 800](#): Agreement-based Determinations of No Adverse Effect, Memoranda of Agreement, and Programmatic Agreements.

*While there are different kinds of agreement documents, they share similar needs and are clear and consistent in wording. In many cases, people will use the document and carry out its terms years after it was written. For this reason, the wording should be clear and stipulations of an agreement should be detailed and understandable to a reader who is unfamiliar with the project. Wherever possible, use standardized provisions.*

Preparation of agreement documents shall follow the guidelines issued by the ACHP entitled *Preparing Agreement Documents: How to Write Determinations of No Adverse Effect, Memoranda Of Agreement, and Programmatic Agreements under 36 CFR Part 800 (1989)*. **Exhibit 7.1**, included at the end of this chapter, provides a checklist prepared by the ACHP for the preparation of a thorough, organized, and well-written agreement document.

## 7.4.2 Agreement-based Determinations of No Adverse Effect

An agreement presenting conditions that, if met, will constitute a no adverse effect on the *NRHP*-listed or eligible properties by the proposed undertaking is called an Agreement-based Determination of No Adverse Effect (NAE). It is appropriate to make a determination of no adverse effect under certain conditions. One case is when there really will be no adverse effect; that is, measures are agreed upon to keep adverse effects from occurring. Examples include installation of fencing around the boundaries of a historic property or monitoring during construction activities to ensure that no damage occurs.

An example format for an NAE determination, modified from the Advisory Council's Preparing Agreement Documents (page 19-20), is provided in **Exhibit 7.2**. This example assumes SHPO concurrence with FHWA. Thus, in lieu of full documentation, the ACHP is notified with summary documentation. Boldface is used to indicate language that is almost always appropriate, while items that always or often vary from case to case are shown in italic and bracketed when they appear within a sentence.

## 7.4.3 Memoranda of Agreement

The most common agreement document for FHWA and FDOT projects is a **Memorandum of Agreement (MOA)**. This document outlines the measures that the consulting parties have agreed upon to avoid, reduce, or mitigate the adverse effects that an undertaking may have on *NRHP*-listed or eligible properties. There are two kinds of MOAs: "three-party" and "two-party." A three-party MOA is when the Advisory Council is involved in the consultation process, and a two-party MOA is when the ACHP has not been involved in consultation but receives the MOA after FHWA has prepared it.

The first section of the MOA introduces the undertaking, the affected *NRHP*-eligible properties, and the consulting parties. This section is usually composed of a series of "whereas" statements about the project, ending with a "now, therefore" clause. The stipulations/conditions follow, often using the language the "FHWA will ensure that" the various agreed-upon steps are carried out. Administrative stipulations, including provisions for dispute resolution between parties, a sunset clause, and provisions for amendments, among others, are also contained within the MOA. The document ends with a statement concerning the execution of the MOA and the implementation of its terms, followed by signatures of all the consulting parties. For a two-party MOA, the ACHP is given an "Accepted" block, not a signature block. For a three-party MOA, the ACHP is provided a signature block.

An example format for a **two-party MOA**, taken from the ACHP's *Preparing Agreement Documents* (page 21-22), is provided in **Exhibit 7.3**. Boldface is used to indicate language that is almost always appropriate, while items that always or often vary from case to case are shown in italic and bracketed when they appear within a sentence.

In addition to this standard format, two completed MOA's for federally aided transportation projects in Florida - one concerning a significant archaeological resource and the other a historic bridge - are provided in **Exhibit 7.4** and **Exhibit 7.5**, respectively.

#### 7.4.4 Programmatic Agreement

A **Programmatic Agreement (PA)** is a tool by which a federal agency program or large undertaking will comply with the Section 106 review process by an alternative method. This method is tailored to the needs of the agency. It should be emphasized that PAs are agency-wide agreements; that is, a district should not try to obtain its own PA. PAs are generally used for repetitive or widespread actions. *For example*, the Pennsylvania Department of Transportation (PennDOT) has drafted a Programmatic Agreement for "minor transportation projects" when the effects on cultural resources are similar and repetitive. PennDOT's PA "*does not remove activities from the review process, but rather allows for reviews to occur at levels considered appropriate based on the type of activity and its potential effect to cultural resources.*" Under "Stipulation C," which calls for PennDOT District Office review without further review by Central Office or the SHPO for activities that will have no effect on any historic properties when they occur within the existing disturbed road right-of-way, the following types of minor transportation projects are covered:

1. *Resurfacing, surface treatments, seal coats, milling and grooving or existing roadway and parking lot surfaces provided there is no exposed or anticipated exposure of historic material (e.g., brick, cobblestone, belgian block, decorative tile, granite curbs)*
2. *New or renewal of pavement marking, raised pavement markings or similar features*
3. *Activities within the existing disturbed median including installation of new or replacement of median barriers provided that the median is less than 50 years old and not a contributing element within an existing or potentially eligible historic property*
4. *Rehabilitation of existing at-grade railroad crossings*
5. *Construction of disability access ramps per the Assessment of No Effect agreed upon by the SHPO and PennDOT dated 1/26/92*
6. *Drainage improvements, including installation, replacement, rehabilitation, and cleaning activities*
7. *Construction of bicycle and pedestrian lanes, paths and facilities, and multi-use paths and facilities*
8. *Rail-to-Trail projects where all disturbance activities will occur within the existing railroad bed*
9. *Rehabilitation within the disturbed area of existing safety rest areas and truck weigh stations*
10. *Track and rail bed maintenance with no change in grade*

An example format for a Programmatic Agreement, taken from the Advisory Council's *Preparing Agreement Documents* guide (page 24), is provided in **Exhibit 7.6**. Boldface is used to indicate language that is almost always appropriate, while items that always or often vary from case to case are shown in italic and bracketed when they appear within a sentence.

## 7.5 FEATURED HYPERLINKS

36 CFR Part 68 The Secretary of the Interior's Standards for the Treatment of Historic Properties  
[http://www.access.gpo.gov/nara/cfr/waisidx\\_01/36cfr68\\_01.html](http://www.access.gpo.gov/nara/cfr/waisidx_01/36cfr68_01.html)

36 CFR Part 800 Protection of Historic Properties  
<http://www.achp.gov/regs.html>

36 CFR Part 800.4 Identification of Historic Properties  
<http://www.achp.gov/regs.html#800.4>

36 CFR Part 800.5 Assessment of Adverse Effects  
<http://www.achp.gov/regs.html#800.5>

36 CFR Part 800.6 Resolution of Adverse Effects  
<http://www.achp.gov/regs.html#800.6>

36 CFR Part 800.8 Coordination with the NEPA  
<http://www.achp.gov/regs.html#800.8>

36 CFR Part 800.11 Documentation Standards  
<http://www.achp.gov/regs.html#800.11>

Federal Highway Administration  
<http://www.fhwa.dot.gov/>

Florida Department of Transportation  
<http://www.dot.state.fl.us/Default.htm>

State Historic Preservation Officer  
<http://dhr.dos.state.fl.us/index.html>

**EXHIBIT 7.1**  
**CHECKLIST FOR A GOOD AGREEMENT**  
**DOCUMENT UNDER 36 CFR PART 800**  
**(Prepared by the Advisory Council on Historic Preservation)**

**CHECK LIST FOR A GOOD AGREEMENT DOCUMENT  
UNDER 36 CFR PART 800**

**A. General**

1. Have you addressed the entire undertaking?
2. Have you made the document personality-free?
3. Have you thought about what might go awry in implementing the agreement, and provided for it?
4. Have you considered making the contract scope (or other performance measure) of work to be done under the agreement an explicit part of the document (e.g., an appendix)?
5. Have you addressed all pertinent statutory authorities?
6. Have you had a “cold reader” review the document and provide a critique?
7. Have you had the document reviewed by a lawyer?
8. Have you checked your citations of statutes, regulations, and other documents for accuracy?
9. If your document is a PA or a “three party” MOA, have you developed it in consultation with the Council.
10. If your document is a PA or a “two-party” MOA, are you including with it in your submission to the Council:
  - a. the documentation need to make it understandable to the Council, including everything called for by 36 CFR § 800.8(b) and (c); and
  - b. a copy of the notification you sent the Council pursuant to 36 CFR § 800.8(a);
11. If your document is an agreement-based determination of no adverse effect, are you including with it in your submission to the Council:
  - a. the documentation needed to make it understandable to the Council, including everything called for by 36 CFR § 800.8(a);

- b. the agreement you have reached with the SHPO upon which the determination is based; and
- c. if you are invoking one of the exceptions to the Criteria of Adverse Effect, any plans, specifications, research designs, deed restrictions, or other documents showing that the requirements of the exception are or will be met?

**B. Title**

- 1. Have you used the right title for the kind of document you have prepared?
- 2. Have you identified the undertaking or program in the title?
- 3. Have you identified the signatory parties correctly in the title?
- 4. If you are amending an existing document, have you made this fact clear in the title?

**C. “Whereas” and “Now, Therefore” clauses (or their equivalents in a determination of No Adverse Effect)**

- 1. Have you clearly identified the undertaking, preferably citing a specific, dated document that describes it?
- 2. Have you clearly and consistently identified the responsible agency?
- 3. Have you considered identifying the APE?
- 4. If your document is an MOA or NAE, have you specifically and consistently identified the historic properties involved?
- 5. If your document is a PA, have you included a clause or clauses establishing why you need an alternative to the standards Section 106 process?
- 6. If you are using the document to address laws other than Section 106, have you appropriately indicated this and identified the laws?
- 7. If you are amending an existing document, have you made this clear in a “Whereas” clause or its equivalent?
- 8. If your document is an MOA or PA, have you used the right “Now, Therefore” clause for the kind of document it is (2-party MOA, 3-party MOA, PA)?
- 9. If implementation of the agreement is contingent upon agency approval of the undertaking, have you indicated this in the “Now, Therefore” clause or its equivalent?

**D. Stipulations/conditions**

1. Have you specified that the responsible agency will ensure that the stipulations or conditions are implemented?
2. Have you phrased all the stipulations or conditions in active voice?
3. Have you included everything agreed upon by the consulting parties?
4. Have you structured the stipulations or conditions in a logical order?
5. Have you represented only one agreed-upon measure in each stipulation or condition?
6. If you have used standard stipulations from PAD, or copied stipulations from another agreement document, have you adjusted the language appropriately to make it fit your situation?
7. Have you used terms, including acronyms, consistently?
8. Have you minimized the use of unusual terms?
9. Have you defined any unusual terms you have used?
10. Where terms with statutory or regulatory definitions are available, have you used them, rather than alternative terms that lack such definitions?
11. Have you included full citations, with dates, whenever you have cited a statute, regulation, guideline, standard, plan, specification, or other document for the first time, and given the document a short title for subsequent reference?
12. Have you been consistent in your subsequent references to each such document?
13. Have you given each stipulation its own alphanumerical indicator?
14. Have you considered giving each stipulation a name?
15. If you have stipulated that some portion of 36 CFR Part 800 or another regulation, statute, or other document will be followed, have you done so explicitly by reference, rather than by paraphrasing?
16. Have you screened the stipulations or conditions for:
  - a. passive voice?
  - b. internal or inter-stipulation contradictions?

- c. “soft” or unclear terms like “avoid,” “may,” and “should?”
  - d. subjectives?
  - e. undue subtlety?
  - f. unspecified assumptions?
  - g. paraphrasing of regulations, laws, or standards?
17. Have you considered, and either included or explicitly rejected as unnecessary, all relevant administrative stipulations, such as:
- a. provisions for dispute resolution among parties?
  - b. provisions for resolving objections from others?
  - c. specific, effective provisions for monitoring performance?
  - d. a sunset clause?
  - e. annual or other periodic reporting, with specific dates and expectations?
  - f. annual reviews?
  - g. performance bonds?
  - h. provisions for review in the event something changes?
  - I. mechanisms for making minor adjustments?
  - j. mechanisms to ensure that responsible personnel are kept aware of their responsibilities under the agreement?

**E. Concluding clause (or equivalent)**

- 1. Have you used the correct ultimate clause for the kind of agreement document you have prepared?
- 2. If implementation is contingent upon agency approval of the undertaking, have you indicated this in the concluding clause?

**F. Signature blocks**

- 1. Have you provided correct signature blocks for all signatories?

2. If there are concurring parties, have you provided concurrence blocks for them?
3. If your document is a “two-party” MOA, have you given the Council an “Accepted” block, not a signature block?
4. If your document is a “three-party” MOA, have you given the Council a signature block, not an “Accepted” block?

**G. Appendices**

1. Have you included all necessary appendices?
2. Have you given each appendix a clear title and date?
3. In the body of the document, have you cited each appendix correctly, at each place you need to cite it?

**EXHIBIT 7.2**  
**NAE DETERMINATION SUBMITTED WITH**  
**SUMMARY DOCUMENTATION AGREEMENT**

[Name]  
Director, Eastern Office of Project Review  
Advisory Council on Historic Preservation  
1100 Pennsylvania Avenue, NW, Suite 809  
Washington, D.C. 20004

Dear [Name]:

The U.S. Department of Transportation, Federal Highway Administration (FHWA) is [planning/considering/other appropriate term] the [name of undertaking]. In consultation with the Florida State Historic Preservation Officer (SHPO), we have applied the Criteria of Effect and Adverse Effect found in 36 CFR 800.9 of your regulations to this undertaking and determined that it will have no adverse effect on historic properties. As indicated by [his/her signature below/the attached letter], the SHPO has concurred in our determination. The following summary documentation is attached for your review:

- A description of the [name of undertaking]
- A [map or other documentation] showing the area of potential effect
- A summary description of the historic [property/properties] subject to effect
- Our reasons for believing that the undertaking will have no adverse effect on historic properties
- A copy of the SHPO's letter of [date] indicating concurrence in our determination [or have SHPO sign concurrence line on letter]
- [Copies/A summary] of the views of [specify interested persons who have submitted comments, if any]

[Use one or more of the following paragraphs only if relevant.]

In making our determination, we have agreed with the SHPO to carry out the following actions to ensure that adverse effect will be avoided:

[List actions agreed to.]

Please review the material enclosed and contact [name and address of contact person] if you have any questions. If we do not hear from you within 30 days after your receipt of this letter, we will

assume that you do not object to our determination, and will proceed with [the undertaking/our planning process/our review of the application/etc.], subject to [the agreement noted above].

Sincerely,

[Name of the Federal Highway Division Administrator]  
Division Administrator  
U.S. Department of Transportation  
Federal Highway Administration  
227 N. Bronough Street, Room 2015  
Tallahassee, Florida 32301-2015

**EXHIBIT 7.3**  
**SAMPLE TWO-PARTY MEMORANDUM**  
**OF AGREEMENT**

**MEMORANDUM OF AGREEMENT  
SUBMITTED TO THE ADVISORY COUNCIL ON HISTORIC PRESERVATION  
PURSUANT TO 36 CFR §800.6(a)**

WHEREAS, the [name of agency] has determined that [name of undertaking] will have an effect upon [name of property or properties], [a property/properties] [included in/eligible for inclusion in] the National Register of Historic Places, and has consulted with the Florida State Historic Preservation officer (SHPO) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f); and

WHEREAS, [names of other consulting parties, if any] participated in the consultation [and has/have been invited to concur in this Memorandum of Agreement]; and

WHEREAS, the definitions given in Appendix \_\_\_ are applicable throughout this Memorandum of Agreement;

NOW, THEREFORE, [name of agency] and the Florida SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

Stipulations

[Name of agency] will ensure that the following measures are carried out:

[Insert stipulations here.]

Execution of this Memorandum of Agreement by [name of agency] and the Florida SHPO, its subsequent acceptance by the Council, and implementation of its terms, evidence that [name of agency] has afforded the Council an opportunity to comment on the [name of undertaking] and its effects on historic properties, and that [name of agency] has taken into account the effects of the undertaking on historic properties.

[NAME OF AGENCY]

By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Name and title of signer)

FLORIDA STATE HISTORIC PRESERVATION OFFICER

By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Name and title of signer)

Concur:\*

[NAME(S) OF CONCURRING PARTY/PARTIES]

By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Name and title of signer)

ACCEPTED for the Advisory Council on Historic Preservation

By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Name and title of signer, provided by Council)

\* Optional: for use where other parties concur in MOA

**EXHIBIT 7.4**  
**SAMPLE TWO-PARTY MEMORANDUM OF**  
**AGREEMENT**  
**(WITH *NRHP*-ELIGIBLE ARCHAEOLOGICAL SITE)**

**MEMORANDUM OF AGREEMENT  
SUBMITTED TO THE ADVISORY COUNCIL ON HISTORIC PRESERVATION  
PURSUANT TO 36 CFR § 800.6(a)**

WHEREAS, the U.S. Department of Transportation, Federal Highway Administration (FHWA), proposes to provide financial assistance for Project M-1712(2), Pasco County, Florida; and,

WHEREAS, the FHWA has consulted with the Florida State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act [16 U.S.C. Section 470(f)], and has determined that the proposed project will have an unavoidable effect on the Gorges Site, 8PA275, a property eligible for listing in the National Register of Historic Places; and,

WHEREAS, the Florida Department of Transportation (FDOT) has participated in the consultation and has been invited to concur in this Memorandum of Agreement;

NOW THEREFORE, FHWA, FDOT, and the Florida SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in consideration of the effect this undertaking will have on the historic property.

Stipulations

FHWA will ensure that the following measures are carried out:

1. Archaeological excavation and artifact recovery (Phase III) will be conducted at that portion of Site 8PA275 affected by FHWA/FDOT activities. This work must be of a level to mitigate adverse effects to the archaeological resource and shall be conducted in accordance with an approved data recovery plan.
2. The FHWA shall ensure that the data recovery plan entitled "Archaeological Data Recovery at Site 8PA275" is implemented prior to and in coordination with those project activities that could disturb 8PA275. The FHWA shall ensure that the data recovery plan is developed in consultation with the SHPO for the recovery of archaeological data from 8PA275. The new plan shall be consistent with the "Secretary of the Interior's Standards and Guidelines for Archeological Documentation" (48 FR 44734-37) and take into account the Council's publication, "Treatment of Archaeological Properties" (Advisory Council on Historic Preservation, (draft) 1980), subject to any pertinent revisions the Council may make in the publication prior to completion of the data recovery plan. The plan shall also take into account "FDOT Project Development and Environment Guidelines" (revised July 1988) and "The Historic Preservation Compliance Review Program Guidelines" (revised November 1990) promulgated by the Florida Division of Historical Resources.

The data recovery plan shall specify, at a minimum:

- The portions of Site 8PA275 where data recovery is to be carried out;
- Any portions of Site 8PA275 that will be affected, that is, altered or destroyed, without data recovery;
- The research questions to be addressed through the data recovery, with an explanation of their relevance and importance;
- The methods to be used, with an explanation of their relevance to research questions;
- The methods to be used in analysis, data management, and dissemination of data, including a schedule;
- The proposed disposition of recovered materials and records;
- The proposed methods for involving the interested public in the data recovery;
- The proposed methods for disseminating results of the work to the interested public;
- The proposed methods by which interested parties will be kept informed of the work and afforded the opportunity to participate;
- A proposed schedule for the submission of progress reports to the FHWA and FDOT.

The data recovery plan shall be submitted by FHWA to the SHPO for 30 days for review. Unless the SHPO objects within 30 days after the receipt of the plan the FHWA shall ensure that it is implemented.

3. The FHWA shall ensure that all historic preservation work carried out pursuant to this agreement is carried out by or under the direct supervision of a person or persons meeting at a minimum the professional qualifications for an archaeologist set forth in 36 CFR Part 66, Appendix C, "Professional Qualifications."
4. The FHWA shall ensure that all materials and records resulting from the data recovery conducted at 8PA275 are curated by the SHPO or another state agency or an organization which is able to provide curation in accordance with 36 CFR Part 79.

Execution of this Memorandum of Agreement by FHWA, FDOT, and the Florida SHPO, its subsequent acceptance by the Council, and implementation of its terms, evidence that FHWA has afforded the Council an opportunity to comment on Project No. M-1712(2) and its effects on historic properties, and that FHWA has taken into account the effects of the undertaking on historic properties and is satisfying the requirements of Section 106 of the National Historic Preservation Act [16 U.S.C. Section 470(f)].

FEDERAL HIGHWAY ADMINISTRATION

Approved By: \_\_\_\_\_  
[Name], Division Administrator

Date \_\_\_/\_\_\_/\_\_\_

FLORIDA DEPARTMENT OF TRANSPORTATION

Concur By: \_\_\_\_\_  
[Name], Secretary

Date \_\_\_/\_\_\_/\_\_\_

FLORIDA STATE HISTORIC PRESERVATION OFFICER

Approved By: \_\_\_\_\_  
[Name], SHPO

Date \_\_\_/\_\_\_/\_\_\_

ACCEPTED for the Advisory Council on Historic Preservation

By: \_\_\_\_\_  
[Name], Executive Director

Date \_\_\_/\_\_\_/\_\_\_

**EXHIBIT 7.5**  
**SAMPLE TWO-PARTY MEMORANDUM OF**  
**AGREEMENT**  
**(WITH *NRHP*-ELIGIBLE HISTORIC BRIDGE)**

**MEMORANDUM OF AGREEMENT  
BETWEEN THE U.S. DEPARTMENT OF TRANSPORTATION,  
FEDERAL HIGHWAY ADMINISTRATION AND THE FLORIDA STATE  
HISTORIC PRESERVATION OFFICER  
SUBMITTED TO THE ADVISORY COUNCIL ON HISTORIC PRESERVATION  
PURSUANT TO 36 CFR PART 800.6(a)  
REGARDING IMPROVEMENTS TO STATE ROAD 39 FROM I-4 TO US 301  
IN HILLSBOROUGH AND PASCO COUNTIES, FLORIDA**

WHEREAS, the U.S. Department of Transportation, Federal Highway Administration (FHWA), proposes to provide financial assistance to the Florida Department of Transportation (FDOT) for Federal Aid Project No. F-321-1(4), improvements to State Road 39 from I-4 to US 301 in Hillsborough and Pasco Counties, Florida (State Project No. 10200-1508; Work Program Item No. 7115925); and

WHEREAS, the FHWA has consulted with the Florida State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act [Title 16 USC Section 470(f)], and has determined that the proposed project will have an effect on the Blackwater Creek Overflow Bridge (8HI5042), a property eligible for listing in the National Register of Historic Places; and

WHEREAS, the FHWA requires widening of the Blackwater Creek Overflow Bridge on State Road 39 to provide shoulders and traffic barriers for safety; and

WHEREAS, the concrete rubble and granite block veneer fascia which face both sides of the bridge and form the guardrail are significant character-defining features of the Blackwater Creek Overflow Bridge; and

WHEREAS, it is the intent of the FDOT to restore the historic character of the bridge by retaining the existing east fascia of the bridge, and by reconstructing the western fascia through the removal and replacement of the original concrete rubble and granite blocks to replicate the original design; and

WHEREAS, a new bridge structure will be added approximately 28 feet to the west of the existing bridge to provide southbound lanes; and

WHEREAS, the FDOT has participated in the consultation and has been invited to concur in this Memorandum of Agreement;

NOW THEREFORE, the FHWA, the FDOT, and the Florida SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in consideration of the effect this undertaking will have on the historic property.

## Stipulations

The FHWA will ensure that the following measures are carried out:

### 1. Documentation

The FHWA shall ensure that the following documentation measures are carried out prior to any alterations to the Blackwater Creek Overflow Bridge:

- A. Preparation of photographic documentation including site and location views from all quarters, exterior elevations (all sides), and photographs of all noteworthy ornamental features. Photographs shall be large format (4" x 5") black and white negatives and prints using appropriate means to correct perspective distortion, in accordance with the *Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation* (48 FR 44730-38) and Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) photographic guidelines. All negatives and prints shall be processed (Indexed, sleeved, and captioned) and stored to meet HABS/HAER and archival standards.
- B. Preparation of drawings of the bridge consistent with Level II documentation standards of the *Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation* (48 FR 44730-38).
- C. Preparation of a written history and bridge description as part of the documentation package.
- D. Color photography, including 35 mm Kodachrome transparencies (slides) and color prints (non-archival) to document the historic property before, during, and after reconstruction.

One set of documentation photographs (black and white) with accompanying identification and one set of drawings, all meeting archival standards, and the written history and bridge description, shall be provided to the Florida SHPO for the Bureau of Historic Preservation. A second set of photographs and drawings, and the written history and bridge description, shall be made available to an appropriate local archive designated by the Florida SHPO.

### 2. Project Design

- A. The FHWA shall ensure that the project design for new construction and reconstruction of the Blackwater Creek Overflow Bridge is compatible with the historical and architectural qualities of the structure in terms of scale, massing, color, and materials, and is responsive to the recommended approaches to rehabilitation and reconstruction set forth in the *Secretary of the Interior's Standards and Guidelines for Historic Preservation Projects* (48 FR 44737-44739), and that the design and specifications for the project are developed in consultation with the Florida SHPO

and submitted to the Florida SHPO for review and approval, in accordance with Stipulation 3, below.

B. Specific aspects of the design to be addressed by the review process outlined below are:

- (1) Design of reconstruction to widen existing bridge: The Blackwater Creek Overflow Bridge will remain in place. It will be widened by approximately 20 feet to provide six foot inside and ten foot outside shoulders. A New Jersey barrier for driver safety will also be constructed. All bridge widening is proposed to occur on the west side. The roadway alignment in the area of the bridge will be shifted approximately 12 feet to the west to obtain a 10 foot shoulder with a New Jersey barrier on the existing structure.
- (2) Reconstruction of the west fascia: Reconstruction of the west fascia of the existing bridge shall replicate the original design using original materials, to the greatest extent possible. The original concrete rubble and granite blocks will be removed and replaced. Each block will be removed, cleaned, and stored until the bridge has been widened to the west. After the bridge is widened and new traffic barriers are installed, the concrete rubble and granite blocks will then be placed back on the west fascia of the bridge to replicate the original design, although it is not intended to replace each piece in its original position. Since it is expected that some pieces of granite and concrete rubble blocks will be damaged beyond use during this process, it is intended to use cast concrete replicas for any lost pieces. The surface color of the replica blocks shall match the original construction as closely as possible. The existing visual appearance and aesthetic qualities of the historic bridge's exterior fascia will be retained, to the greatest extent practicable.
- (3) East fascia: The existing east fascia of the bridge will be retained. If needed, any cleaning or repairs to existing materials shall follow the *Secretary of the Interior's Standards and Guidelines for Historic Preservation Projects* (48 FR 44737-44739).
- (4) New bridge construction: A new bridge will be added approximately 28 feet to the west to provide two southbound lanes. The new bridge structure is proposed to be constructed on a pile foundation. The new structure design is proposed to be of compatible size and scale to the original, yet clearly differentiated from it, in accordance with the *Secretary of the Interior's Standards for Rehabilitation and Illustrated Guidelines for Rehabilitating Historic Buildings* (1992).
- (5) Roadway (lane) side alterations: New traffic barriers are required on the reconstructed bridge for driver safety. It is acknowledged that the visual and aesthetic qualities of the bridge will be altered on the roadway (lane) side

since the original and reconstructed balustrades will be obscured from view by the new modern traffic barriers.

### 3. Project Review

#### A. Schedule and Time Frame

- (1) The FHWA shall ensure that design documents and other appropriate representations for the reconstruction of the Blackwater Creek Overflow Bridge are provided to the Florida SHPO for review and comment at the completion of the 30%, 60%, 90%, and 100% plans, specifications and estimates (PS&E) for SHPO's review, unless agreed otherwise by SHPO.
- (2) At each stage of project review, the Florida SHPO shall have 30 days from receipt of complete and adequate documentation to provide comments to the FDOT. The Florida SHPO shall notify the FDOT within ten working days if documentation is determined to be inadequate or incomplete. Timely comments of the Florida SHPO and any other review party shall be forwarded to the FDOT following review of the documentation, and consideration of review comments from other parties, if appropriate.
- (3) The Florida SHPO is encouraged to provide review comments to FDOT within 30 days from receipt.

B. The FDOT shall take into account all comments provided by the Florida SHPO.

C. If the comments submitted to the FDOT recommend no changes, or recommend changes which are fully incorporated into revised documents by the FDOT, then the proposed construction activities may proceed without further consultation. However, if preservation issues remain unresolved, then the consultation process shall continue as described in 3.D, below, until the FDOT and the Florida SHPO agree that the design review process has been completed.

D. If the reviewing parties raise historic preservation related objections to proposed FDOT plans submitted for review, the FHWA, the FDOT, and the Florida SHPO shall meet, as appropriate, in an effort to resolve the area of dispute; any of these consulting parties shall have the authority to invite the Advisory Council on Historic Preservation (the Council) to participate in such a meeting. Should the FHWA, the FDOT, and the Florida SHPO be unable to resolve the issue of dispute, then the matter will be referred to the Council for resolution pursuant to Stipulation 6, below.

E. Following completion of the design review process pursuant to the foregoing stipulations, any changes to the design of the Blackwater Creek Overflow Bridge project which may affect design criteria delineated in Stipulation 2.B above, as they

relate to historic properties, shall be subject to the design review process prescribed herein.

#### 4. Interim Protection

The FHWA shall ensure that the Blackwater Creek Overflow Bridge is protected against damage until the measures agreed upon in this Memorandum of Agreement (MOA) are implemented.

#### 5. Administrative Conditions

The FHWA shall ensure that all historic preservation work carried out pursuant to this MOA is carried out by or under the direct supervision of a person or persons meeting at a minimum the *Secretary of the Interior's Professional Qualifications Standards* (48 FR 44738-9) for Architectural History or Historic Architecture.

#### 6. Resolving Objections

Should any party to this MOA object within 30 days after receipt to any action carried out or proposed by the FHWA with respect to this bridge widening and reconstruction project or implementation of this MOA, the FHWA shall consult with the objecting party to resolve the objection. If after initiating such consultation the FHWA determines that the objection cannot be resolved through consultation, the FHWA shall forward all documentation relevant to the objection to the Council, including the FHWA's proposed response to the objection. Within 30 days after receipt of all pertinent documentation, the Council shall exercise one of the following options:

- (1) Advise the FHWA that the Council concurs in the FHWA's proposed final decision, whereupon the FHWA will respond to the objection accordingly;
- (2) Provide the FHWA with recommendations, which the FHWA shall take into account in reaching a final decision regarding its response to the objection; or
- (3) Notify the FHWA that the Council will comment pursuant to 36 CFR Part 800.6(b), and proceed to comment. The resulting comment shall be taken into account by the FHWA in accordance with 36 CFR Part 800.6(c)(2).

#### 7. Amendments

Any party to this MOA may propose to the FHWA that the MOA be amended, whereupon the FHWA shall consult with the other parties to this MOA to consider such an amendment. 36 CFR Part 800.5(e) shall govern the execution of any such amendment.

#### 8. Termination

- A. If the FHWA determines that it cannot implement the terms of this MOA, or if the Florida SHPO or Council determines that the MOA is not being properly imple-

mented, the FHWA, Florida SHPO, or Council may propose to the other parties to this MOA that it be terminated, pursuant to 36 CFR Part 800 7(c).

- B. The party proposing to terminate this MOA shall so notify all parties to this MOA, explaining the reasons for termination and affording them at least 30 days to consult and seek alternatives to termination.
- C. Should such consultation fail and the MOA be terminated, the FHWA shall either:
  - (1) Consult in accordance with 36 CFR Part 800.5(e) to develop a new MOA;
  - or
  - (2) Request the comments of the Council pursuant to 36 CFR Part 800.5(e)(6).

Execution of this Memorandum of Agreement by the FHWA, the FDOT, and the Florida SHPO, its subsequent acceptance by the Council, and implementation of its terms, evidence that FHWA has afforded the Council an opportunity to comment on Federal Aid Project Number F-321-1(4) and its effects on historic properties, and that FHWA has taken into account the effects of the undertaking on historic properties and is satisfying the requirements of Section 106 of the National Historic Preservation Act (Title 16 USC Section 470(f)).

FEDERAL HIGHWAY ADMINISTRATION

Approved By: \_\_\_\_\_  
[Name], Division Administrator

Date \_\_\_/\_\_\_/\_\_\_

FLORIDA DEPARTMENT OF TRANSPORTATION

Concur By: \_\_\_\_\_  
[Name], Secretary

Date \_\_\_/\_\_\_/\_\_\_

FLORIDA STATE HISTORIC PRESERVATION OFFICER

Approved By: \_\_\_\_\_  
[Name], SHPO

Date \_\_\_/\_\_\_/\_\_\_

ACCEPTED for the Advisory Council on Historic Preservation

By: \_\_\_\_\_  
[Name], Executive Director

Date \_\_\_/\_\_\_/\_\_\_

**EXHIBIT 7.6**  
**PROGRAMMATIC AGREEMENT**

**PROGRAMMATIC AGREEMENT  
AMONG  
THE [NAME OF AGENCY],  
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,  
[AND] THE [designate SHPO, SHPOs, National Conference of SHPOs,  
other parties] REGARDING IMPLEMENTATION OF THE [identify program, etc.]**

WHEREAS, the [name of agency] proposes to administer the [name of program or project] authorized by [cite statutory authority]; and

WHEREAS, the [name of agency] has determined that the [program/project] may have an effect upon properties included in or eligible for inclusion in the National Register of Historic Places and has consulted with the Advisory Council on Historic Preservation (Council) and the [Florida State Historic Preservation Officer (SHPO)/National Conference of State Historic Preservation Officers (NCSHPO)/others] pursuant to Section 800.13 of the regulations (36 CFR Part 800) implementing Section 106 of the National Historic Preservation Act; (16 U.S.C. 470f), [and Section 110(f) of the same Act (16 U.S.C. 470h-2(f)); and

WHEREAS, [names of other consulting party/parties, if any] participated in the consultation and [has/have] been invited to [execute/concur in] this Programmatic Agreement; and  
WHEREAS, the definitions given in Appendix \_\_\_ are applicable throughout this Programmatic Agreement;

NOW, THEREFORE, [name of agency], the Council, and the [SHPO/NCSHPO/other] agree that the [program/project] shall be administered in accordance with the following stipulations to satisfy [name of agency]'s Section 106 responsibility for all individual [undertakings of the program/aspects of the program].

Stipulations

[Name of agency] will ensure that the following measures are carried out:

[Insert stipulations here.]

( ) The Council and the [SHPO/NCSHPO/other] may monitor activities carried out pursuant to this Programmatic Agreement, and the Council will review such activities if so requested. The [name of agency] will cooperate with the Council and the [SHPO/NCSHPO/other] in carrying out their monitoring and review responsibilities.

( ) Any party to this Programmatic Agreement may request that it be amended, whereupon the parties will consult in accordance with 36 CFR 800.13 to consider such amendment.

( ) Any party to this Programmatic Agreement may terminate it by providing thirty (30) days notice to the other parties, provided that the parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination .In the event of termination, the [name of agency] will comply with 36 CFR 800.4 through 800.6 with regard to individual undertakings covered by this Programmatic Agreement.

( ) In the event the [name of agency] does not carry out the terms of this Programmatic Agreement, the [name of agency] will comply with 36 CFR 800.4 through 800.6 with regard to individual undertakings covered by this Programmatic Agreement.

Execution and implementation of this Programmatic Agreement evidences that [name of agency] has satisfied its Section 106 responsibilities for all individual undertakings of the program.

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Name and title of signer)

[NAME OF AGENCY]

By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Name and title of signer)

FLORIDA STATE HISTORIC PRESERVATION OFFICER

By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Name and title of signer)

[OTHER SIGNATORIES, IF ANY]

**CHAPTER 8**  
**AVOIDANCE, MINIMIZATION, AND MITIGATION**  
**MEASURES TO RESOLVE EFFECTS TO HISTORIC**  
**RESOURCES**

*Public involvement and consultation are key elements intended to be ongoing throughout the four steps of the revised Section 106 process. The type of public involvement will depend upon various factors, including the nature and complexity of the undertaking, the potential impact, the historic property, and the likely interest of the public in historic preservation issues. Refer to Chapter 2 for an overview of the Section 106 process and a list of participants.*

**CHAPTER 8**  
**AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES**  
**TO RESOLVE ADVERSE EFFECTS TO HISTORIC RESOURCES**

**8.0 OVERVIEW**

The agreements made by the FHWA and the FDOT to consider the effects on historic properties listed, or eligible for listing in the *National Register of Historic Places (NRHP)*, are **legally binding documents**. Therefore, it is important that the Department carefully monitor any conditions placed on the transportation project construction activities and the fulfillment of commitments made to minimize or mitigate effects to significant cultural resources within the project area. All the commitments made during the Section 106 process should be fulfilled before the construction activities of the project are completed. The Department is responsible for meeting this schedule.

For projects requiring design changes or contract commitments to **avoid** or **minimize** impacts to cultural resources (e.g., placement of fencing), the Department shall coordinate with a contractor to ensure compliance. For projects requiring **mitigation** measures, the Department shall coordinate with a cultural resource consultant on preparing the appropriate documentation (e.g., Historic American Building Survey [HABS]/Historic American Engineering Record [HAER] documentation) for review by the SHPO and other designated parties.

*Mitigation refers to actions that reduce or compensate for the damage an undertaking may have on an NRHP listed or eligible property. Agreement documents such as a Memorandum of Agreement specify the selected mitigation measures for the particular undertaking.*

This chapter focuses on the various types of measures used to mitigate the adverse effects of the transportation project to *NRHP* listed or eligible historic resources. Chapter 8 begins with a brief look at the historic resource mitigation process, outlines a series of mitigation alternatives, and concludes with a discussion of typical mitigation solutions. The mitigation process for archaeological sites is the subject of Chapter 9. The following sections are covered in this chapter:

| <b>SECTION</b> | <b>CONTENTS</b>                          | <b>PAGE</b> |
|----------------|--|-------------|
| 8.1            | Historic Resource Mitigation Process     | 8-3         |
| 8.2            | Typical Mitigation Measures and Examples | 8-4         |
| 8.3            | Featured Hyperlinks                      | 8-17        |

## 8.1 HISTORIC RESOURCE MITIGATION PROCESS

### 8.1.1 Introduction

The proposed mitigation measure for a particular project is described in the agreement document, usually the Memorandum of Agreement (MOA). As previously noted, the MOA contains stipulations specifying how the undertaking will be carried out in order to avoid or mitigate adverse effects. If possible, avoidance should always be considered the first option. Often, more than one alternative is selected as the optimum mitigation measure for a particular project, such as a combination of documentation and rehabilitation or documentation and salvage.

Prior to initiating any mitigation measure, prepare a detailed proposal outlining the methods selected for each mitigation measure. This proposal, also known as an “approved research design or mitigation plan,” includes at minimum, the type of mitigation alternative specified in the agreement document, the level of documentation to be performed (if required), a schedule of tasks, and the end product (i.e., report, drawings, photographs, relocated and/or rehabilitated structure, etc.). The proposal is reviewed and understood by all consulting parties involved in Step 4 of the Section 106 process.

Each mitigation measure must follow specific standards and guidelines, as set forth by the [Secretary of the Interior](#) and published in the Federal Register. These standards and guidelines regulate preservation planning, identification, evaluation, registration, historical documentation, architectural and engineering documentation, archaeological documentation, and historic preservation projects. The latter is subdivided to include specific standards for acquisition, protection, stabilization, preservation, rehabilitation, restoration, and reconstruction of historic properties listed, or eligible for listing, in the *NRHP*.

Follow the review process specified in the agreement document (or in the mitigation proposal if not included in the agreement document) to make sure the specified mitigation measures have been implemented according to the agreement document, mitigation proposal, and [The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation](#).

If the mitigation terms specified in the agreement document will be carried out over a considerable period of time, the agreement document may provide for one or more types of review during the mitigation implementation process. This may even include the establishment of a date on which the agreement document, if not implemented, will become null and void, causing the undertaking to be reviewed anew under the regulations. A less severe approach includes the provision for review of the terms of the agreement document at a particular time by the consulting parties. Many PAs include provisions for annual or other periodic review. Finally, an agreement document can provide for review of specific important changes, such as changes in personnel or organizations responsible for major implementing actions.

### **8.1.2 Mitigation Alternatives**

Typical mitigation measures for historic resources listed in, or eligible for listing in the *NRHP*, are listed below. Section 8.2 elaborates on these measures.

- Avoidance of the resource
- Minimization through limiting the magnitude of the undertaking
- Modifying the undertaking through redesign, reorientation of construction on the project site or other similar changes
- Repair, rehabilitation, or restoration of an affected *NRHP*-listed or eligible property (as opposed, for instance, to demolition)
- Preservation and maintenance operations for involved *NRHP*-listed or eligible properties
- Documentation (drawings, photographs, histories) of *NRHP*-listed or eligible resources that must be destroyed, relocated, or substantially altered
- Relocation of *NRHP*-listed or eligible properties
- Salvage of architectural information and materials from *NRHP*-listed or eligible properties

## **8.2 TYPICAL MITIGATION MEASURES AND EXAMPLES**

### **8.2.1 Minimization**

This mitigation measure could be interpreted for FHWA and FDOT use as reducing the extent of the project, activity, or program that would have an effect on a *NRHP*-listed or eligible property. Specific examples of limiting the magnitude of the undertaking include the following:

- Reduce the size and scope of the overall project
- Confine boundaries of the project in areas (i.e., segments of the roadway) where it might adversely affect *NRHP*-listed or eligible properties
- Design/redesign of roadway improvements such as: (1) reduce the number of proposed lanes; (2) consider drainage options; (3) select minimum requirements for lane, median, and recovery zone dimensions
- Contain any proposed improvement within the existing right-of-way
- Select an alignment alternative that would avoid impacts to the *NRHP*-listed or eligible property

Most, if not all, of these possible solutions would require no taking of additional right-of-way so as not to physically impact or encroach upon the *NRHP*-listed or eligible property. Some solutions would even limit other potential adverse effects such as visual, audible, and/or access effects to the *NRHP*-listed or eligible property.

### **8.2.2 Modifying the Undertaking through Redesign, Reorientation of Construction on the Project Site, or Other Similar Changes**

This mitigation measure could be interpreted for FHWA and FDOT purposes as refining or slightly changing the design of the actual roadway improvements in order to avoid or limit the effects to a *NRHP*-listed or eligible property. This does not appear to indicate a total redesign or rerouting of the proposed roadway as would be expected in the first mitigation measure described in Section 8.2.1. However, this mitigation measure could be combined with one or more other mitigation measures. Possible solutions include the following options:

- Create an at-grade roadway instead of an elevated roadway that would significantly affect views from and toward the *NRHP*-listed or eligible property
- Reroute the roadway in certain areas to go around a *NRHP*-listed or eligible property
- Create an earth berm or other form of landscaped barrier to limit visual and audible intrusion into an *NRHP*-listed or eligible property or district
- Redesign lanes, curb, sidewalk, and other roadway improvements to be compatible in design, scale, and materials with the existing *NRHP*-listed or eligible property or district. *For example*, re-use or match existing street paving or sidewalk paving materials (brick, hexagonal pavers, etc.)
- Retain or replant existing landscape elements (trees, shrubs, or grass) and/or other boundary elements (fences, walls, etc.) along the roadway right-of-way
- Use signs, street lighting, traffic lighting, etc. that will be compatible with the *NRHP*-listed or eligible property or district

Most, if not all, of these possible solutions would limit the amount of physical impact or encroachment upon the *NRHP*-listed or eligible property. Some solutions would even limit other potential adverse effects such as visual, audible, and/or access effects to the *NRHP*-listed or eligible property.

### **8.2.3 Repair, Rehabilitation, or Restoration of an Affected Property Listed in, or eligible for listing in the *NRHP***

**Rehabilitation** is defined in the *Federal Register* as “the act or process of returning a property to a state of utility through repair or alteration that makes possible an efficient contemporary use while preserving those portions or features of the property which are significant to its historical, architectural and cultural values.” **Restoration** is more restrictive and exacting. As defined in the *Federal Register*, restoration is “the act or process of accurately recovering the form and details of a property and its setting as it appeared at a particular period of time by means of the removal of later work or by the replacement of missing earlier work.”

As required, both rehabilitation and restoration follow [\*The Secretary of the Interior's Standards and Guidelines for Historic Preservation Projects\*](#) (48 FR 44737), which include eight general standards plus additional specific standards for individual treatments (i.e., acquisition, protection, stabilization, preservation, rehabilitation, restoration, and reconstruction). In accordance

with the Secretary of the Interior's Standards, the following **general** standards apply to all treatments undertaken on historic properties listed in the *NRHP*:

1. *Every reasonable effort shall be made to provide a compatible use for a property that requires minimal alteration of the building, structure, or site and its environment, or to use a property for its originally intended purpose.*
2. *The distinguishing original qualities or character of a building, structure, or site and its environment shall not be destroyed. The removal or alteration of any historic material or distinctive architectural features should be avoided when possible.*
3. *All buildings, structures, and sites shall be recognized as products of their own time. Alterations which have no historical basis and which seek to create an earlier appearance shall be discouraged.*
4. *Changes that have taken place in the course of time are evidence of the history and development of a building, structure, or site and its environment. These changes may have acquired significance in their own right, and this significance shall be recognized and respected.*
5. *Distinctive architectural features or examples of skilled craftsmanship that characterize a building, structure, or site shall be treated with sensitivity.*
6. *Deteriorated architectural features shall be repaired rather than replaced wherever possible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, color, texture, and other visual qualities. Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historic, physical, or pictorial evidence rather than on conjectural designs or the availability of different architectural elements from other buildings or structures.*
7. *The surface cleaning of structures shall be undertaken with the gentlest means possible. Sandblasting and other cleaning methods that will damage the historic building materials shall not be undertaken.*
8. *Every reasonable effort shall be made to protect and preserve archaeological resources affected by, or adjacent to, any acquisition, stabilization, preservation, rehabilitation, restoration, or reconstruction project.*

The repair and rehabilitation methods are more common than restoration, depending on the extent of modifications required to make the resource usable, as they retain the historic physical integrity of the building. This mitigation measure may also include documentation of the existing historic property as well as documentation of the repair, rehabilitation, or restoration methods used. Documentation methods for mitigation measures are described in Section 8.2.5 below.

In accordance with *The Secretary of the Interior's Standards for Rehabilitation and Restoration*, the following specific standards for each treatment are to be used in conjunction with the eight general standards. In each case, these specific standards begin with the number 9. **For example**, the Standards for Rehabilitation include the eight general standards plus the two specific standards listed below.

#### *Standards for Rehabilitation*

9. *Contemporary design for alterations and additions to existing properties shall not be discouraged when such alterations and additions do not destroy significant historic, architectural, or cultural material and such design is compatible with the size, scale, color, material, and character of the property, neighborhood, or environment.*
10. *Wherever possible, new additions or alterations to structures shall be done in such a manner that if such additions or alterations were to be removed in the future, the essential form and integrity of the structure would be unimpaired.*

#### *Standards for Restoration*

9. *Every reasonable effort shall be made to use a property for its originally intended purpose or to provide a compatible use that will require minimum alteration to the property and its environment.*
10. *Reinforcement required for structural stability or the installation of protective or code required mechanical systems shall be concealed wherever possible so as not to intrude or detract from the property's aesthetic and historical qualities, except where concealment would result in the alteration or destruction of historically significant materials or spaces.*
11. *Restoration work such as the demolition of non-contributing additions that will result in ground or structural disturbance shall be preceded by sufficient archaeological investigation to determine whether significant subsurface or structural features or artifacts will be affected. Recovery, curation and documentation of archaeological features and specimens shall be undertaken in accordance with appropriate professional methods and techniques.*

Some possible solutions under this mitigation measure include the following:

- Repair, rehabilitate, or restore a *NRHP*-listed or eligible bridge rather than replace it with a new one. This includes maintaining what is significant about the bridge, whether it be architectural or mechanical (i.e., structural design of bridge, architectural or decorative features, or draw bridge machinery).

- Repair, rehabilitate, or restore an *NRHP*-listed or eligible bridge along with construction of a new aesthetically compatible companion bridge which would handle excess traffic (for traffic in the other direction) or for all automobile traffic when reusing the historic bridge for pedestrian, bicycle, trolley, or other mode of transportation. Again, this includes maintaining what is significant about the bridge, whether it be architectural or mechanical.
- Repair, rehabilitate, or restore an *NRHP*-listed or eligible tollbooth, or other transportation related structure (not a roadway or bridge).
- Repair, rehabilitate, or restore an *NRHP*-listed or eligible landscape bordering the proposed roadway improvement, or at least replant the area so that one day it will look similar. This can include canopy trees flanking an existing roadway, significant wildflowers in medians and beside the roadway, and planned hedges of significant plant types. It also could include replanting or restoring all or part of a formal or informal landscape plan on an *NRHP*-listed or eligible parcel that may be affected by the taking of additional right-of-way.
- Repair, rehabilitate, or restore *NRHP*-listed or eligible streetscape features such as: street paving and curbing, sidewalks, lights, benches, fences, walls, etc.

This mitigation measure would result in a repaired, rehabilitated, or restored *NRHP*-listed or eligible historic property following the specifications outlined in the agreement document and the applicable [\*The Secretary of the Interior's Standards and Guidelines for Historic Preservation Projects\*](#). The end product may also include an assortment of report documents as needed to comply with the agreement document. These may include: an architectural and/or historic documentation report; a feasibility study or proposal for the repair, rehabilitation or restoration process; and/or a summary report documenting the specified process.

#### **8.2.4 Preservation and Maintenance Operations for Involved *NRHP*-Listed or Eligible Properties**

**Preservation** is defined in the *Federal Register* as “the act or process of applying measures to sustain the existing form, integrity and material of a building or structure, and the existing form and vegetative cover of a site. It may include initial stabilization work, where necessary, as well as ongoing maintenance of the historic building materials.” **Stabilization** is defined as “the act or process of applying measures designed to reestablish a weather resistant enclosure and the structural stability of an unsafe or deteriorated property while maintaining the essential form as it exists at present.” **Maintenance** includes the protective care of a resource from the attacks of climate, chemical and biological agents, normal use, and intentional abuse. Maintenance activities include cleaning, repairing, and replacing.

Preservation and maintenance methods generally involve less construction than the repair, rehabilitation and restoration measures described above in Section 8.2.3. The preservation and maintenance process would also require following the eight general standards plus specific stan-

dards for stabilization and maintenance, as contained in [\*The Secretary of the Interior's Standards and Guidelines for Historic Preservation Projects\*](#) (48 FR 44737).

In accordance with *The Secretary of the Interior's Standards for Rehabilitation and Restoration*, the following specific standards are to be used in conjunction with the eight general standards. In each case, these specific standards begin with the number 9. **For example**, the Standards for Stabilization include the eight general standards plus the three specific standards listed below.

#### *Standards for Stabilization*

9. *Stabilization shall reestablish the structural stability of a property through the reinforcement of load bearing members or by arresting deterioration leading to structural failure. Stabilization shall also reestablish weather resistant conditions for a property.*
10. *Stabilization shall be accomplished in such a manner that it detracts as little as possible from the property's appearance and significance. When reinforcement is required to reestablish structural stability, such work shall be concealed wherever possible so as not to intrude upon or detract from the aesthetic and historical or archaeological quality of the property, except where concealment would result in the alteration or destruction of historically or archaeologically significant material or spaces. Accurate documentation of stabilization procedures shall be kept and made available for future needs.*
11. *Stabilization work that will result in ground disturbance shall be preceded by sufficient archaeological investigation to determine whether significant subsurface features or artifacts will be affected. Recovery, curation and documentation of archaeological features and specimens shall be undertaken in accordance with appropriate professional methods and techniques.*

#### *Standards for Preservation*

9. *Preservation shall maintain the existing form, integrity, and materials of a building, structure, or site. Archaeological sites shall be preserved undisturbed whenever feasible and practical. Substantial reconstruction or restoration of lost features generally is not included in a preservation undertaking.*
10. *Preservation shall include techniques of arresting or retarding the deterioration of a property through a program of ongoing maintenance.*
11. *Use of destructive techniques, such as archaeological excavation, shall be limited to providing sufficient information for research, interpretation, and management needs.*

Examples of mitigation measures involving preservation and maintenance operations include the following:

- Retain an *NRHP*-listed or eligible bridge that may only require stabilization and/or maintenance to remain useful, rather than replace it with a new bridge. The maintenance procedures, if continued on an annual basis, should help to keep the structure in good, usable condition and retain its historic, architectural, or cultural value.
- Preserve and maintain *NRHP*-listed or eligible landscape and streetscape features, including canopy trees, other plants bordering the roadway, street paving and curbing, sidewalks, lights, benches, fences, walls, etc.
- Retain other *NRHP*-listed or eligible transportation related structure(s) (not roadways or bridges) that may be in good condition. Retain their original use or find a new, compatible use for the structure(s) if the original use is no longer compatible with the structure, possibly due to size, location, or lack of need.

These mitigation measures would result in a preserved, maintained, or stabilized *NRHP*-listed or eligible historic property following the specifications outlined in the agreement document and *The Secretary of the Interior's Standards and Guidelines for Historic Preservation Projects*.

The end product may also include an assortment of report documents as needed to comply with the agreement document. These may include an architectural and/or historic documentation report; a feasibility study or proposal for the preservation, maintenance or stabilization process; a continuing maintenance manual; and/or a summary report documenting the specified process.

### **8.2.5 Documentation (Drawings, Photographs, Histories) of *NRHP*-Listed or Eligible Resources that Must be Destroyed, Relocated, or Substantially Altered**

Documentation usually consists of measured drawings, photographs, and written data that provide “important information on a property’s significance for use by scholars, researchers, preservationists, architects, engineers and others interested in preserving and understanding historic properties. Documentation permits accurate repair or reconstruction of parts of a property, records existing conditions for easements, or may preserve information about a property that is to be demolished” (48 FR 44730).

Documentation is an essential form of mitigation for *NRHP*-listed or eligible historic resources; it provides a record of the existing resource before it is impacted. The key to quality documentation is research; provide information about an *NRHP*-listed or eligible resource using a variety of sources and techniques in order to comprehensively tell its “story.” Four standards and four levels of documentation are included in [\*The Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation\*](#).

The **four standards** are “intended for use in developing documentation to be included in the [Historic American Building Survey \(HABS\)](#) and the [Historic American Engineering Record \(HAER\)](#) collections in the Library of Congress” (48 FR 44730). They are as follows:

**Standard I. Content:** documentation shall adequately explicate and illustrate what is significant or valuable about the historic building, site, structure, or object being documented.

**Standard II. Quality:** documentation shall be prepared accurately from reliable sources with limitations clearly stated to permit independent verification of the information.

**Standard III. Materials:** documentation shall be prepared on materials that are readily reproducible, durable, and in standard sizes.

**Standard IV. Presentation:** documentation shall be clearly and concisely produced.

The **four levels of documentation** were devised to aid in documentation of specific significant resources. The type and amount of documentation should be appropriate to the nature and significance of the buildings, site, structure or object being documented. Generally, Level I documentation is required for nationally significant buildings and structures, defined as National Historic Landmarks (NHL) and historic properties maintained by the [National Park Service](#). The aspect of the property that is being documented should reflect the nature and significance of the resource being documented. This may include documentation of innovative structural and mechanical systems as well as the architectural features typically documented.

Guidelines for each of the four standards as required for each of the four levels of documentation are detailed in the [Federal Register \(48 FR 44730\)](#). The requirements for Standard II (Quality) and Standard III (Materials) are the same for each level of documentation. For transportation-related projects, the primary use and content requirements for each of the four levels of documentation are as follows:

**Documentation Level I:**

Use: Primarily used for NHL resources and occasionally for *NRHP*-listed or eligible resources depending on the reason for mitigation.

Content: Drawings: a full set of measured drawings depicting existing or historic conditions. These shall be lettered mechanically or in a hand printed equivalent style. Adequate dimensions shall be included on all sheets.

Photographs: photographs with large-format negatives of exterior and interior views, including duplicate photographs that show a scale. Photocopies with large format negatives of select existing drawings or historic views where available.

Written data: history and description typewritten on bond, following accepted rules of grammar.

**Documentation Level II:**

Use: Primarily for most *NRHP*-listed or eligible resources, but depends on the reason for mitigation.

Content: Drawings: selected existing drawings, where available, should be photographed with large-format negatives or photographically reproduced on Mylar. If existing drawings are housed in an accessible collection and cared for archivally, their reproduction for HABS/HAER may not be necessary. On the other hand, if existing drawings are not available, Level I drawings may be required. Adequate dimensions shall be included on all sheets.

Photographs: photographs with large-format negatives of exterior and interior views, or historic views, where available. These shall include, at minimum, at least one photograph with a scale, usually of the principal facade.

Written data: history and description typewritten on bond, following accepted rules of grammar.

**Documentation Level III:**

Use: Primarily for contributing resources within an *NRHP*-listed or eligible historic district.

Content: Drawings: neat and orderly sketch plan, used to help explain the structure. Include adequate dimensions on all sheets.

Photographs: photographs with large-format negatives of exterior and interior views. These shall include, at minimum, at least one photograph with a scale, usually of the principal facade.

Written data: architectural data form that should supplement the photographs by explaining what is not readily visible.

**Documentation Level IV:**

Use: Rarely considered adequate documentation for the HABS/HAER collections but is undertaken to identify historic resources in a given area prior to additional, more comprehensive, documentation.

Content: HABS/HAER inventory card.

The agreement document, usually the MOA, spells out which level of documentation is required for a particular project requiring mitigation. If this is not included in the MOA, FHWA and FDOT consult with SHPO to determine the proper level of documentation. In either case, once the level of documentation has been selected, FDOT prepares a detailed proposal outlining the methods to be used for a particular mitigation measure. The proposal includes the type of mitigation, level of documentation, schedule of tasks, and end product. The description of the end product specifies the following information:

- Type of report (including number of total copies)
- Number, format (size, etc.) and type of drawings (i.e., site plan, floor plan(s)),

- elevation(s), section(s), detail(s))
- Number, type and location (views) of photographs
- Number, type and location of paint samples (if required) and how they will be analyzed
- Outline for written history and description. The proposal is reviewed and understood by all consulting parties involved in Step 3 of the Section 106 process.

Examples of mitigation measures involving documentation include the following:

- If an *NRHP*-listed or eligible building or structure (i.e., bridge or other transportation related structure) must be demolished (including the salvage of architectural elements), substantially altered, or possibly even rehabilitated, restored, or relocated, one of four levels of documentation is generally required as a mitigation measure for the historic property. Documentation Level II is most often required as a mitigation measure for above noted types of effects on individual *NRHP*-listed or eligible historic properties.
- If a contributing resource (usually a building, structure or object) within a *NRHP*-listed or eligible historic district must be demolished (including the salvage of architectural elements), substantially altered, or possibly even rehabilitated, restored, or relocated, one of four levels of documentation is generally required as a mitigation measure for the historic property. Documentation Level III may be accepted as an appropriate mitigation measure for the documentation of contributing resources within an *NRHP*-listed or eligible historic district.
- If an *NRHP*-listed or eligible landscape or vista, including scenic roadways, must be demolished, substantially altered, or possibly even rehabilitated, restored, or relocated, one of four levels of documentation is generally required as a mitigation measure for the historic landscape or vista.

The documentation process generally results in a documentation package including drawings, photographs, written description, and written history following The [\*Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation\*](#). The level of documentation specified in the agreement document or the mitigation proposal is described in these standards.

### **8.2.6 Relocation of *NRHP*-Listed or Eligible Properties**

Relocation of *NRHP*-listed or eligible buildings, structures or objects may involve moving the resource onto another part of the existing property (land parcel) or onto another parcel, either nearby or farther away. The use of relocation as a mitigation measure often includes documentation and rehabilitation or restoration as companion mitigation measures. The resource should not be moved without a record (documentation) of its existing and historically significant features and without means for continued use (or reuse) of the resource through some form of repair, rehabilitation, or restoration, which should also retain its historic physical integrity. Each of these

should follow guidelines established by the Secretary of the Interior. In some instances it may be important to place a descriptive marker at the original site of the relocated structure to indicate its significance to the community, primarily if this significance was due to its location such as a train depot.

The ACHP's handbook, *Preparing Agreement Documents*, discusses several valuable requirements when moving a *NRHP*-listed or eligible property. **For example**, where a property is to be moved from its existing site, the SHPO should be afforded the opportunity to review and approve the new site. When reviewing potential sites the agency official should look for similarity of surrounding architecture, topography, land use, and vegetation. Obviously, a site closely resembling the original site is preferable. The handbook continues with additional requirements:

1. The site should be one at which the property can be effectively used for modern purposes
2. The property should be documented in its original location
3. The property should be moved in accordance with the recommended approaches in *Moving Historic Buildings* by John Obed Curtis and in consultation with SHPO
4. The property should be moved by a professional who has the capability to properly move historic resources
5. If the building will stand vacant for a period of time before, during, or after the move, provision should be made for it to be adequately secured and protected during that time
6. Within a definite period shortly after the move, provision should be made for the SHPO to re-evaluate the property on its new site and, if the property is included in the *NRHP*, to make a recommendation to the Secretary of the Interior as to its continued inclusion

Examples of mitigation measures that involve relocation:

- Relocate contributing historic structures (buildings) within a *NRHP*-listed or eligible district when impacted by the requirement for additional right-of-way. These relocated structures should remain within the boundaries of the *NRHP*-listed or eligible district, if possible, to retain their historic context. If this is not possible, they should be relocated to another historic district nearby with a similar historic and architectural context, or immediately adjacent to their original district if the context is compatible.
- Relocate a *NRHP*-listed or eligible structure(s) (i.e., primary structure, significant outbuilding, architectural garden feature, etc.) to another portion of its existing site, or to an acceptable nearby site, if it is to be physically impacted by additional right-of-way requirements. The physical and historic context, as well as relationship to other elements on the site, should be similar and approved by SHPO.
- Relocate an *NRHP*-listed or eligible bridge to a local park, or similar location, to be incorporated into a pedestrian, equestrian, and/or bicycle transportation system(s),

for example. This is especially beneficial for the reuse of significant bridges that are too small to handle the current increased traffic loads and which cannot be altered (rehabilitated) sympathetically to safely handle the increased load.

These mitigation measures would result in a relocated *NRHP*-listed or eligible historic property, which has also been preserved, maintained, repaired, rehabilitated, or restored to a usable condition, following the specifications outlined in the agreement document and [\*The Secretary of the Interior's Standards and Guidelines for Historic Preservation Projects\*](#). The end product may also include an assortment of report documents as needed to comply with the agreement document. These may include an architectural and/or historic documentation report; a feasibility study or proposal for the relocation as well as the selected preservation, maintenance, repair, rehabilitation, or restoration process; and/or a summary report documenting the specified process. In some cases, the end product may also include a descriptive marker placed at the relocated structure's original site.

Relocation may be preceded by the FDOT's development of a **Marketing Plan** to find a qualified buyer to move the historic structure to a new site. *For example*, a road-widening project may result in unavoidable impacts to individual properties contained within a historic district being considered for listing in the *NRHP*. The structures will be demolished unless they are acquired and relocated. In an effort to minimize impacts to the historic district, the FDOT and FHWA, in consultation with the SHPO, can attempt to locate parties who are interested in purchasing and relocating the structures to a new site within or adjacent to the historic district, in accordance with the Department of the Interior's recommendations for moving historic buildings, and as approved by the SHPO.

Provision for the marketing of a historic property is contained in the project's MOA. The Marketing Plan stipulated in this agreement document shall include the following elements, as outlined in the ACHP's *Preparing Agreement Documents* (1989:34):

1. An information package about the property, including but not limited to the following:
  - Photographs of the property
  - A parcel map
  - Information on the property's historic significance
  - Information on the property's cost; information on any Federal assistance that may be available to purchasers; *for example*, applying the cost of demolition to the purchase price or to the cost of rehabilitation
  - Information on Federal [and other] tax benefits for rehabilitation of historic structures
  - Notification that the purchaser will be required to [rehabilitate/maintain] the property in accordance with the recommended approaches in [\*The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings\*](#)
  - Notification of any requirement for inclusion of a restrictive covenant in the transfer document

2. A distribution list of potential purchasers of transferees
3. An advertising plan and schedule
4. A schedule for receiving and reviewing offers

### **8.2.7 Salvage of Architectural Information and Materials**

**Salvage** is defined as something saved from neglect or destruction. The purpose of architectural salvage is the reuse of parts or entire buildings. The ACHP's handbook, *Preparing Agreement Documents*, discusses several valuable requirements when salvaging architectural elements from a *NRHP*-listed or eligible property. *For example*, sometimes the consulting parties agree that a historic building or structure has to be demolished, but that the building or structure contains significant architectural features that might be reused or should be saved for curation. An agreement document may as a result provide that, prior to demolition of the property and after the property has been properly recorded, the SHPO or the SHPO's designee, such as a local museum, should be allowed to select architectural elements for curation or use in other projects. These items should then be carefully removed and delivered to the SHPO or the SHPO's designee. In other cases, the document may provide for the agency itself to use salvaged material in the new construction.

As mentioned in the preceding paragraph, documentation is an appropriate mitigation measure to be conducted concurrently with this salvage mitigation measure. The documentation should be performed in accordance to the guidelines and standards described elsewhere in this section. Again, a detailed methodology proposal should be submitted to SHPO for their review and approval prior to commencing any salvage on a building or structure. This could be tied into the documentation package by showing in a separate set of drawings and/or photographs which elements are to be salvaged. Descriptive markers may also be appropriate mitigation measure for structures that will be demolished.

Mitigation measures involving salvage may include the following:

- Salvage of significant architectural elements from a *NRHP*-listed or eligible resource that is beyond repair or is otherwise determined not to be preserved by any other method. This may be useful when a building, which will be physically impacted by a roadway improvement, has deteriorated and it has been determined that it is no longer economically feasible to relocate and/or rehabilitate it but retains some unique and reusable architectural features.
- Save and reuse (on this project or elsewhere) existing significant architectural elements of a bridge, road or sidewalk paving, street lighting, etc.
- Salvage unique or otherwise historically and/or architecturally significant elements for curation and/or display in a local museum.
- Provide interpretation of the significant *NRHP*-listed or eligible resource using

historical markers, signs, or other graphics showing architectural, historical and/or archaeological significance of the demolished structure.

- Provide interpretation through informative brochures or video presentations made available to the public.

These mitigation measures would result in salvaged architectural elements and/or information from a *NRHP*-listed or eligible historic property following the specifications outlined in the agreement document. The salvaged elements may be reused elsewhere on the proposed undertaking, reused by others in a related context, or donated to a local historical society or museum, as stipulated in the agreement document. The end product may also include an assortment of report documents to comply with the agreement document. These may include an architectural and/or historic documentation report; a feasibility study or proposal for the preservation of the historic property vs. the salvage of selected materials and elements; a record of materials and elements which are to be salvaged; and/or a summary report documenting the salvage process, including the methods used and the location of the salvaged materials and elements. In some cases, the end product may also include a descriptive marker placed at the demolished structure's original site.

### **8.3 FEATURED HYPERLINKS**

*Federal Register* (48 FR 44730)

<http://www.cr.nps.gov/habshaer/habs/habsstan.htm>

Historic American Building Survey (HABS)

Historic American Engineering Record (HAER)

<http://www.cr.nps.gov/habshaer/>

National Park Service

<http://www.nps.gov/>

Secretary of the Interior's Standards for Rehabilitating Historic Buildings

<http://www2.cr.nps.gov/tps/tax/rhb/index.htm>

Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation

[http://www.cr.nps.gov/local-law/arch\\_stnds\\_9.htm](http://www.cr.nps.gov/local-law/arch_stnds_9.htm)

Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation

[http://www.cr.nps.gov/local-law/arch\\_stnds\\_6.htm](http://www.cr.nps.gov/local-law/arch_stnds_6.htm)

The Secretary of the Interior's Standards and Guidelines for Historic Preservation Projects

[http://www.cr.nps.gov/local-law/arch\\_stnds\\_8\\_2.htm](http://www.cr.nps.gov/local-law/arch_stnds_8_2.htm)

Secretary of the Interior's Standards for the Treatment of Historic Properties  
[http://www.cr.nps.gov/local-law/arch\\_stnds\\_4\\_2.htm](http://www.cr.nps.gov/local-law/arch_stnds_4_2.htm)

Standards for Stabilization  
[http://www.cr.nps.gov/local-law/arch\\_stnds\\_8\\_2.htm](http://www.cr.nps.gov/local-law/arch_stnds_8_2.htm)

Standards for Preservation  
[http://www.cr.nps.gov/local-law/arch\\_stnds\\_8\\_2.htm](http://www.cr.nps.gov/local-law/arch_stnds_8_2.htm)

Standards for Rehabilitation  
[http://www.cr.nps.gov/local-law/arch\\_stnds\\_8\\_2.htm](http://www.cr.nps.gov/local-law/arch_stnds_8_2.htm)

Standards for Restoration  
[http://www.cr.nps.gov/local-law/arch\\_stnds\\_8\\_2.htm](http://www.cr.nps.gov/local-law/arch_stnds_8_2.htm)

## CHAPTER 9

### ARCHAEOLOGICAL MITIGATION ALTERNATIVES

*Public involvement and consultation are key elements intended to be ongoing throughout the four steps of the revised Section 106 process. The type of public involvement will depend upon various factors, including the nature and complexity of the undertaking, the potential impact, the historic property, and the likely interest of the public in historic preservation issues. Refer to Chapter 2 for an overview of the Section 106 process and a list of participants.*

## CHAPTER 9 ARCHAEOLOGICAL MITIGATION ALTERNATIVES

### 9.0 OVERVIEW

This chapter begins with a brief look at mitigation alternatives designed to avoid or minimize the adverse effects of FDOT undertakings to *National Register of Historic Places (NRHP)*-listed or eligible archaeological sites. This is followed by a detailed description of mitigation through archaeological excavation and data recovery. Included are content requirements for research designs and excavation reports, plus recommended excavation and analysis techniques.

The level of detail presented in this chapter is intended to serve two audiences. The first is FDOT personnel who prepare the scopes of work for mitigative excavation projects, as well as review budgets, schedules, and project-specific research designs and reports. The second group includes archaeological consultants hired by the FDOT to carry out the tasks described herein. For consultants, the specific goals are two-fold:

1. To ensure the integrity and quality of the work effort by providing a set of minimum standards by which a project's effectiveness and adequacy can be measured
2. To establish basic research issues and analytical methods to ensure consistency of effort and comparability of data

The scope and intent of this chapter are consistent with the standards and guidelines set forth in [\*Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines\*](#), the [\*Florida Department of State's Historic Preservation Compliance Review Program\*](#) (Final Draft Document, November 1990) and Cultural Resource Management Standards and Operational Manual (2003), as well as Chapter 1A-46, *Florida Administrative Code*.

Chapter 8 covers the following information:

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### 9.1 ARCHAEOLOGICAL MITIGATION ALTERNATIVES

Mitigation is often assumed to be synonymous with data recovery associated with archaeological excavation, analysis, and documentation. However, depending on which criteria are applied to determine the eligibility of an archaeological site, and the nature of the effects of the proposed FDOT undertaking, alternative mitigative measures may be more appropriate. Whenever practi-

cable, the archaeological site should be left in place and preserved from damage. Nondestructive **avoidance** and **minimization** alternatives should be considered as the first option. These measures may include the following:

- **Limiting** the size of the undertaking to reduce the effect on significant cultural resources. Since many archaeological sites are relatively small in size, it may be possible to avoid a site by reducing the size of the proposed undertaking in the vicinity of the affected resource.
- **Modification** of the undertaking through redesign, reorientation or other similar actions. The redesign of a proposed highway to include a bifurcated median to avoid a burial mound would be an example of this type of mitigation alternative.
- **Repair, rehabilitation or restoration** of an affected property. Although typically associated with historic structures, this mitigative measure may be applicable in the case of some historic archaeological sites that contain architectural features. *For example*, the restoration of a turpentine still or a portion of a defensive wall at a battlefield site may be appropriate mitigative alternatives.
- **Protection** of archaeological deposits through the application of fill over buried archaeological sites. The use of fill material and the planting of natural vegetation to stabilize the shoreline along a precontact midden near a bridge would also be an appropriate mitigation measure.
- **Restriction** of ground disturbance activities to depths shallower than the uppermost undisturbed zone of significant archaeological sites. *For example*, where significant archaeological deposits are located at a depth of 1 m (3.3 ft), it may be, in some instances, acceptable to allow subsurface disturbance to a depth of 0.5 m (1.6 ft).
- **Monitoring** of ground disturbance activities to record significant archaeological remains if they are encountered. This is particularly useful if ground disturbing is expected to be minor or limited in spatial extent, and where conditions are such that hand excavation prior to the undertaking is not feasible. *For example*, a resurfacing project located in the vicinity of a previously recorded archaeological site could be subject to archaeological monitoring and subsequent recording of exposed features and materials.

If these avoidance and minimization alternatives are not feasible, then **data recovery through archaeological excavation** may be warranted. The ability of an archaeological excavation to negate or mitigate adverse effects to a significant archaeological site is dependent on several factors:

- The nature of the proposed action
- The nature of the archaeological resource

- The quality of the data recovery effort

In order to determine whether a data recovery effort will be sufficient to mitigate adverse effects to a significant resource, the ACHP (*Treatment of Archaeological Properties: A Handbook* 1980:18-19) recommends that the following questions should be answered:

1. Does the significance of the property lie primarily in the data it contains such that retrieval of this data in an appropriate manner would preserve its significance? If so,
2. Would preservation in place be more costly or otherwise less practical than data recovery? If so,
3. Is the site:
  - a. A National Historic Landmark,
  - b. Important enough to the fulfillment of purpose of the State Historic Preservation Plan to warrant its protection in place, by itself, or as part of a larger property,
  - c. Significant as a place for public understanding and enjoyment of the past,
  - d. Known or believed to have historic, cultural, or religious significance to a community, neighborhood, or social or ethnic group that would be impaired by its disturbance, or
  - e. So complex, or containing such complicated data, that currently available techniques, funding, time or expertise are insufficient to recover the significant information contained in the site.

If questions (1) and (2) are answered in the affirmative, and questions (3)(a) through (3)(e) are answered in the negative, then the data recovery effort may be considered adequate to mitigate adverse effect to the significant resource, and a determination of no adverse effect may be made.

## **9.2 MITIGATIVE EXCAVATION AND DATA RECOVERY**

### **9.2.1 Introduction**

The purpose of conducting a mitigative excavation is to recover and analyze the significant data contained within an archaeological site and to preserve these data in the form of a written document. All mitigative excavations consist of the following elements: research design, excavation and data collection, analysis, and documentation. The recommended methods and approaches for these work tasks are detailed in Sections 9.3 (Research Design), 9.4 (Excavation), 9.5 (Analysis), and 9.6 (Documentation) below.

### **9.2.2 Time and Cost Considerations**

FDOT project managers should note that it is especially important to schedule Phase III excavation projects as soon as possible because of the time needed to complete the data recovery program. Typically, the research design, design review, and field excavation phases of the project

will take many months. For each day of fieldwork, allow a minimum of three days for analysis and report preparation. Generally, anticipate roughly one year between completion of the field excavation and submittal of the draft mitigative excavation report. For sites requiring specialized analyses of large assemblages (e.g., faunal and molluscan analyses from a shell midden type site; analysis of human remains from a burial site), two years for analysis and report preparation may be more appropriate. In order to expedite the SHPO review and compliance process, have the consultant prepare a Management Summary, deliverable within 30 days of fieldwork completion. This should be of a level of detail sufficient to allow for transportation-project clearance.

Labor and cost estimates provided by prospective consultants should include time for a variety of task elements: initial testing (if no Phase II evaluative test excavation was previously performed), mapping, research design preparation, block excavation, analysis, draft and final report preparation, curation, and administration/coordination. Personnel categories should reflect a team effort: Principal Investigator, Project Archaeologist, Archaeological Technicians, Crew (laborers), Laboratory Supervisor, Laboratory Technicians, and Draftsperson. Other personnel, such as a Geomorphologist, may be included as a direct expense. Basic project-related expenses will generally include travel, per diem, film and film processing, report reproduction and binding, and expendable field supplies. Other costs that may be incurred include radiocarbon and other special analyses, rental of heavy equipment (and operators), portable toilets, trailer for transport of large equipment, or rental of surveying instruments.

### **9.2.3 Project Planning**

The FDOT has the responsibility for protecting the archaeological site against damage until the excavation project is implemented. Prior to the beginning of archaeological fieldwork, it will be necessary for the archaeological consultants to make certain preparations. These include obtaining project maps and aerials, complying with the [Underground Facility Damage Prevention and Safety Act \(“Dig Safe”\)](#), assembling equipment and forms, and addressing concerns of crew safety and site security. The notification process for compliance with the “Dig Safe” law is outlined in Section 4.5.2.2 of this handbook. Equipment needs will vary depending on the type of site being excavated. Specific requirements for FDOT projects are discussed in more detail in the sections that follow. Any special equipment that must be obtained through vendors or subcontractors (e.g., heavy equipment, well points, remote sensing instrumentation) should be arranged prior to beginning fieldwork. The safety and well being of all employees working on FDOT related excavations are of great importance. This includes having adequate drinking water, first aid kits, at least one shade tent on site, and such items as back braces for voluntary use by employees while in the process of excavating. Safety also includes equipment that is in proper working order. The excavation of an archaeological site often attracts visitors, both welcome and unwelcome. The latter includes site vandals. The services of a professional security company may be necessary to protect the site overnight and throughout the weekends.

### **9.2.4 Types of Archaeological Sites**

Archaeological excavation can be accomplished in a variety of ways depending on the type of site being excavated, the data classes present, the research goals of the project, and the available

resources. Despite this potential variability, it is possible to identify basic types of precontact and historic archaeological resources that may be encountered in Florida along with the data classes typically associated with each one. This general site typology is presented below to provide some idea of the range of variability in potential excavation and analysis strategies that may be encountered as part of FDOT related mitigation projects.

Archaeological sites containing human remains are especially sensitive cultural resources for legal, ethical, and scientific reasons. It is assumed that if an archaeological site to be excavated is known to contain human remains, the appropriate procedures will be followed. If previously unsuspected human remains are encountered during the course of the excavation, the contractor shall cease work in the immediate area of the grave and shall immediately notify the FDOT Project Manager and the Department's Central Environmental Management Office. The procedures outlined in [Chapter 872.05, F.S.](#) must be followed.

**9.2.4.1 Artifact Scatters:** These are scatters of ceramic sherds, shell food remains, shell tools, lithic tools and manufacturing debris, or any combination of these. These types of sites are very common throughout Florida. Lithic scatters (a subset of artifact scatters) are most common in the Panhandle and central peninsula regions where chert exposures suitable for tool making are present. Artifact scatters are most often found on well-drained sandy ridges or on low rises in the pine flatwoods. The type subsumes a number of different functional types and time periods. Most are believed to be short-term campsites related to hunting and gathering activities, although larger sites with relatively dense amounts of artifacts may represent more permanent habitation sites.

Artifact scatters may range in size from a few hundred square meters to several hectares in extent. They often have relatively deep subsurface components, sometimes in excess of 2 m. Organic preservation is usually poor, so the potential for subsistence remains and environmental data is limited, although occasionally features such as post molds, hearths, or fire pits are present. Observable strata are often lacking and when present are usually the result of natural soil processes rather than cultural factors. These deceptively simple sites have often experienced relatively complex histories of site formation, which are difficult to decipher on the basis of archaeological data alone since none but the most nonperishable artifacts remains. For this reason, artifact scatters are perhaps most in need of supplementary data supplied by soil scientists, geologists, hydrologists, and palynologists to decipher their formation histories.

Because the density and spatial distribution of artifacts and features are often variable at these types of sites, shovel testing at relatively close intervals (25 m or less) is necessary to identify intra-site activity areas. Once identified, activity areas can be investigated through the placement of blocks of contiguous excavation units. This approach is most effective for identifying and removing artifact concentrations or features. In some cases, the use of heavy equipment such as graders or backhoes may be necessary to penetrate deeply buried deposits.

Research at these sites has traditionally focused on the collection of temporally diagnostic artifacts to establish chronological sequences, as well as studies of technology and site function. Because these sites are often spatially expansive, many researchers are now focusing attention on the intensive excavation of specific activity areas in order to learn as much as possible about smaller subsections of these sites which are presumed to represent individual episodes of occupations within a larger site universe consisting of periodic, overlapping occupations through time.

**9.2.4.2 Black Earth Middens:** These sites are characterized by the presence of faunal material (bone and shell), floral material (often charred), and artifacts in dark, organic stained soils. They are usually located in hardwood hammocks adjacent to rivers, streams, lakes, ponds, marshes, sloughs, and swamps. Most of the known middens date to the post-Middle Archaic period although earlier occupations may be present in sub-midden contexts. These sites were used for both long and short-term habitation. In addition to faunal material, shell, bone and antler tools and ornaments, pottery fragments, lithic tools and debris, features such as hearths, roasting pits, storage pits, post molds and living floors, as well as occasional human burials, can all be expected in black earth middens. Charcoal and shell from middens can be used for radiocarbon dating. Faunal material can be used for subsistence, seasonality, environmental, and organizational studies.

Because of the often excellent state of organic preservation at these sites, excavation strategies are typically directed towards obtaining representative samples of faunal and floral material for subsistence and seasonality reconstruction. Distinct stratification related to different occupations is often observable at these sites, and this in combination with dateable organics and abundant artifacts makes black earth middens useful sites for establishing ceramic chronologies that can be used to develop or refine regional culture histories. The typical excavation strategy has been one of deep units or trenches that provide a complete stratigraphic profile of the site. More recently, efforts have been made to investigate the internal spatial organization of these sites by adopting excavation strategies that maximize the potential for spatial as opposed to vertical (i.e., stratigraphic) information. The use of large block excavations and heavy equipment to remove overburden and expose sub-midden features are typical strategies that may be employed. In some areas, where deep deposits penetrate waterlogged sediments, well points are necessary to allow excavation to continue below the water table.

**9.2.4.3 Shell Middens:** The matrix of these sites is predominately marine or fresh water shell refuse. Marine shell middens are typically encountered in coastal hammocks along low energy shorelines such as bays and estuaries. Freshwater shell middens are usually found near lakes or large streams. Some shell middens contain abundant animal and shell food refuse, floral material, and artifacts, as well as features. Others represent refuse heaps consisting almost entirely of shell. Both marine and freshwater shell middens have been dated as early as the Middle to Late Archaic-period and as late as the protohistoric period. Charcoal and shell from middens can be used for radiocarbon dating. Faunal and floral material can be used for studies of subsistence, seasonality and environmental change.

Except for the presence of abundant shell, this site type is similar to black earth middens in research potential and in the approaches that have been taken to their excavation. Excavation strategies that focus on stratigraphic and/or spatial information may be utilized depending on the research needs of the region.

**9.2.4.4 Sand Mounds and Earthworks:** Mounds and earthworks of all types are common throughout Florida. Borrow pits may be found nearby indicating where material was obtained for their construction. Most mounds are believed to have been used for the interment of the dead, although those that contain little or no skeletal material or artifacts are thought to have been used as foundations for dwellings. Burial mounds will be discussed separately under the following section: *Mortuary/Cemetery Sites*. Very large mounds may have served a ceremonial function or as a foundation for the dwellings of religious and political leaders. Most sand mounds are believed to date to the post-Archaic period. They may or may not contain artifacts including ceramics, lithics, faunal material, or features. Sometimes charcoal is found in features that can be used for dating purposes.

Earthworks consist of linear ridges, circular embankments, and causeways constructed of earth and/or shell, as well as their associated borrow pits, and both linear and circular ditches. These are most often associated with other precontact features such as mounds or middens, but they may occasionally be encountered in isolation. They are most often found in South Florida, particularly on the southwestern coast, in the Kissimmee River Valley and Lake Okeechobee basin. Little is known about the function of these earthworks or their data potential. Their artifact content is presumed to be limited, but analysis of soil stratigraphy, chemistry and grain size may shed light on their function and construction history. If carbonized material were present for dating, this would greatly increase their research potential.

Typical mound excavation strategies include the use of perpendicular trenches to obtain stratigraphic cross sections and identify methods of mound construction. If further excavation is warranted, then block excavation of contiguous 2 x 2-m units can be conducted. The excavation of earthworks would proceed along similar lines.

**9.2.4.5 Mortuary/Cemetery Sites:** This type of site includes burial mounds, dry land cemeteries, and wetland cemeteries. These can occur anywhere in Florida, although wet site burials appear to be restricted to the southern half of the state. Cemetery sites are excellent sources of information on social, cultural, religious, and ceremonial aspects of a society. They can also provide information on the physical aspects of a population including diet and health. Bone can be dated, and artifacts found in association with the interments can provide indications of status or wealth.

Mortuary/cemetery sites are rare in comparison to other precontact sites, and can provide unique information not available at more typical sites. Their excavation is very labor intensive, and because of the requirements of [Chapter 872, F.S.](#), it is often necessary to completely remove all interments from an impact area so they may be reinterred in an appropriate location. For this reason, the use of large blocks of contiguous units is pre-

ferred. Graders or other heavy equipment are sometimes necessary to remove overburden or exposed grave pits. Wetland burials require the use of well points to dewater the site for excavation.

**9.2.4.6 Historic Archaeological Sites:** Many historic archaeological sites can be classified as artifact scatters, particularly those created in the recent past. They consist of fragmentary and whole artifacts such as ceramics, glass bottles and other containers, metal tools, iron fragments, building material, and other artifacts. They may date to any time after 1500 AD and be related to a variety of functions including military forts and outposts, homesteads and habitation sites, turpentine and cattle camps, dump and refuse sites, and the remains of entire communities. In comparison to many precontact sites, artifacts are located relatively close to the modern ground surface, often within 0.2-0.3 m. In some cases, sites dating to the twentieth century consist entirely of artifacts on the ground surface. However, other sites (usually ones that have experienced extended or repeated occupation over many years) may contain a substantial subsurface component with many features such as trash pits, privy pits, and building foundations. In urban areas, substantial amounts of fill material have often been deposited sealing earlier historic deposits (as well as precontact deposits) at some depth below the modern ground surface.

Excavation strategies at historic artifact scatters are similar in many ways to those for precontact scatters. Shovel testing or auger testing at close intervals is usually necessary to identify the spatial distribution of subsurface artifact deposits. Remote sensing instrumentation may be used to identify buried features and foundations. *For example*, at military sites metal detectors can identify the possible locations of musket balls and field discards from a battle. Electrical resistivity, magnetometer and ground penetrating radar (GPR) may be used to locate buried fortifications, old wells, burial shafts, and buried foundation features. Once concentrations or features have been identified, block excavations are usually instituted in order to maximize the recovery of spatial information. For sites that contain only near surface deposits, deep excavations may not be necessary. For those with many deep features, or for sites in urban areas that are covered by modern fill, deep excavation techniques and heavy equipment may be necessary to expose buried deposits.

The important feature that distinguishes historic archaeological sites from precontact ones is the documentary record that is often available for specific sites. In order to fully realize the research potential of these sites, and to mitigate adverse effects, it is necessary to conduct the requisite documentary research. This may include locating and examining tax rolls, probate records, early maps, diaries or other primary source materials.

**9.2.4.7 Underwater Sites:** Underwater archaeological sites consist of three basic types: sites created on land that have subsequently become submerged, sites created in submerged contexts (e.g., refuse sites), and shipwrecks. Depending on the type of site encountered, a variety of techniques can be used to conduct an underwater excavation. Some of these techniques may include controlled collection of exposed artifacts using a grid system, the use of steel probes or metal detectors to identify buried deposits, and excavation using a jet probe. Underwater cameras and video equipment can be used to aid in the documentation process.

## 9.3 RESEARCH DESIGN

A research design provides an overall plan to guide the excavation, laboratory analysis, and report content. Because the goal of excavation is different from that of a CRAS, the nature of the research design is also somewhat different. Most importantly, the mitigative research design specifies the research questions that can be addressed by the data contained at the site, and identifies the methods that must be employed to retrieve these data.

In business and industry, the goal is to produce a product or render a service in a cost effective manner. This is accomplished most efficiently when there is a well-defined plan with clearly specified goals, objectives, and methods. The goal of archaeological excavation and analysis is to contribute to our general knowledge about the past. Moreover, archaeological excavation conducted to mitigate impact to significant archaeological sites must be structured to fulfill the requirements of Section 106 and [Chapter 267](#). In order to ensure that these goals are met in an organized, efficient, and economical manner requires that a careful and precise research design be formulated prior to the beginning of any fieldwork. A well thought out research design ensures that the level of effort expended in an archaeological project will be appropriate to meet project needs and will ensure that the end product will make a relevant contribution to the preservation of Florida's past.

### 9.3.1 Elements of a Research Design

A research design typically contains the following elements (see the Advisory Council on Historic Preservation's *Treatment of Archaeological Properties: A Handbook* 1980:24-26 and the [Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines](#), FR Vol. 48, No. 190, p. 44735):

- A statement of the problem or question(s) to be addressed by the research
- A description of the data classes that are expected to be encountered and their relevance to the stated problem or question(s)
- A sampling design that defines the intensity and scope of coverage of the excavation
- A description of the methods and techniques that will be employed in the data collection process and subsequent analysis
- A specification of how the results of the project are to be evaluated in terms of the original problem

**9.3.1.1 Statement of the Research Problem:** The research design begins with the formulation of one or more research problems, questions or hypotheses that can be addressed with data contained in the site. These will address, but need not be limited to, the area(s) of significance that have been identified during the cultural resource assessment survey.

The research design establishes that the specified problem(s) address issues of importance that will contribute to a better understanding of the past, and further, that these issues have not yet been resolved within the discipline. The research problem must therefore be

justifiable within the current parameters of knowledge. This requires some discussion of previous research within a region as well as a consideration of the informational needs of relevant historic contexts and property types. The consultant should refer to [Florida's Historic Context](#) for a discussion of the research needs and data requirements for precontact and historic period contexts and property types.

**9.3.1.1.1 Background Research:** The background research associated with an archaeological excavation typically differs from that associated with a CRAS. Background research for the archaeological mitigation project utilizes but does not duplicate the previous research. This CRAS information is the basis for researching the areas of significance associated with the site. As part of this, the necessary comparative research on sites of a similar type, function or cultural/temporal affiliation is conducted in order to provide a basis for interpreting the data recovered during the excavation. While it is not necessary to report the results of this comparative background research in the initial research design, it will be included in the final report.

**9.3.1.1.2 Development of Research Questions:** An excavation research design focuses on specific questions in order to structure data recovery in an efficient manner. Examples of specific research questions that can be addressed by archaeological data might include:

- *What is the evolutionary relationship between Deptford and Weeden Island cultures in northern Florida?*
- *Did Archaic-period groups in Florida's Central Highlands practice a settlement strategy of residential or logistical mobility?*

By focusing on specific questions, it is possible to identify the necessary data classes in order to contribute to a resolution of research questions. This in turn dictates the methods and techniques to be employed during the excavation. Since it is not possible to collect and analyze potential data classes available at a site, the identification of specific research questions is essential to the efficient and effective use of available time and labor.

**9.3.1.1.3 Human Relationship with the Environment:** Because FDOT transportation activities occur throughout the state in a wide range of environmental contexts, cultural resource projects associated with these activities offer a unique opportunity to examine issues of the relationship between human beings and the natural environment. Although each archaeological site is unique, and each contains its own set of data classes (both cultural and natural), all archaeological sites occupy geographic positions within a natural landscape that have been subject to dynamic geomorphic processes through time. These processes have acted to affect the character and makeup of archaeological sites in four ways:

1. By influencing original decisions to locate sites in specific environmental contexts

2. By affecting how, where, and in what condition archaeological materials were deposited during periods of site occupation and use
3. By influencing post depositional processes of burial and preservation after a site was abandoned
4. By influencing the potential for eventual exposure and discovery

Because the geomorphological context cross cuts all cultural periods and affects all types of archaeological sites, it is a critical aspect of archaeological interpretation. Therefore, in addition to site specific research questions, all FDOT related archaeological excavations should include field and analytical measures necessary to address the following:

- **Landscape context** - consisting of three scales of analysis.
  1. Micro-environment - the local environmental elements that influenced site selection, the length of time it was used, and its subsequent burial and preservation.
  2. Meso-environment - the topographic setting and landforms in the area immediately surrounding the site that influenced decisions regarding resource selection and appropriation.
  3. Macro-environment - a consideration of the site's use within the context of the regional ecosystem.
- **Stratigraphic context** - consisting of a reconstruction of sequential events of soil development, erosion, and sedimentation, as well as an evaluation of local and regional landscape history.
- **Site formation** - including the identification and evaluation of cultural, physical, and biogenic processes that resulted in the deposition of sediments and materials (both cultural and natural) at the site.
- **Site modification** - the identification and evaluation of processes of artifact dispersal, post-depositional site modification, and/or disturbance due to natural and cultural agents.
- **Landscape modification** - the identification and evaluation of patterns of human modification to the natural landscape through space and time, and the effects of these on the structure of the archaeological site.

These issues should be addressed through the use of:

- Historic maps, documents, and informant interviews to document land use patterns and landscape changes in the recent past
- Standard archaeological techniques of stratigraphic analysis, spatial and temporal analyses of artifacts, features, etc.
- Existing environmental, geological, hydrological or other data related to the

- site and region
- Site specific studies of sediments, topography, geomorphology, hydrology or other relevant variables

**9.3.1.2 Description of Data Classes and Relationship to the Research Problem:** The nature of the database at a specific site, and the methods available to collect and analyze these data, may place limitations on the kinds of questions that can be asked. With this in mind it is important to know whether or not the question(s) posed in the research design are answerable with the archaeological data expected at a site. Therefore, a discussion of what data classes are expected and how they will contribute to addressing the stated problem or question is included. *For example*, if faunal remains are not present at a site, or if the fauna present are not sensitive indicators of seasonality, then research questions related to the seasonal use of a site are unlikely to be addressed successfully by the existing data classes. On the other hand, if the necessary species are present, it must be explained how these will be utilized in order to determine seasonality (e.g., study of seasonal growth rings of fish otoliths).

When collection efforts are selectively focused on relevant data classes, it is inevitable that other, less relevant data will be neglected. If the research design does not call for the collection of certain data classes that are known or suspected to be present at a site, the justification for this must be clearly explained in the research design. Moreover, it is essential to specify at what point the data collection effort may become redundant and so fail to produce any additional useful information.

**9.3.1.3 Sampling Design:** It is rarely possible to excavate an entire site, or even all of a portion of a site that will be affected by a proposed transportation project. In lieu of this, some form of sampling is usually implemented. The sampling scheme that is chosen may be either purposive or probabilistic.

A purposive or judgmental sample is based on prior knowledge about the distribution of artifacts and features at a site. This information may be available from the original CRAS, or it may be obtained from systematic testing conducted as part of the mitigation effort. The advantage of using a purposive sampling design is that decisions regarding which parts of the site to include or to exclude are based on hard data. Excavation can focus on those areas that appear, on the basis of preexisting data, to offer the best potential for data recovery. The disadvantage is that the level of representation of the sample in terms of the total population of artifacts and features contained at the site is unknown and cannot be determined. The only valid inferences that can be made are those that relate to the specific areas excavated.

In probabilistic sampling, the decision as where to excavate is determined randomly. Depending on the method used, all portions of a site are given a statistically determined chance of being included in the excavation sample. The advantage of this approach is that it enables predictable statements to be made about the total population of artifacts or features. The disadvantage of a probabilistic sampling design is that potentially productive areas of

the site may not be included in the sample. In order to overcome this, a combination of probabilistic and purposive sampling is sometimes employed.

The use of purposive or probabilistic sampling is dependent on the types of questions asked, the data classes expected, the internal structure of the site, and the time and money available for field work. Regardless of which approach is used, the research design specifies the approach, the specific sampling methods, and the justification for employing these methods so that the adequacy of the sampling strategy can be evaluated.

**9.3.1.4 Sample Size:** In addition to the sampling strategy, the research design includes an estimate of the percentage of the total site area that will be excavated. In general, if a site is to be destroyed by construction activities, a large sample is preferable; however, the size of the sample will also be affected by time and cost considerations. For a very large site covering many acres, a sample as small as 1 percent or less may be acceptable if the sampling design is appropriate to the stated research goals. *For example*, a purposive sample that focuses on one or a few specific activity areas within a larger site universe, or a random sample from a previously defined activity area, may be acceptable strategies for dealing with the problems of small sample size at large sites. Another approach would be an excavation strategy that focuses on a single cultural component (e.g., Paleoindian or Early Archaic) within a multicomponent site. This approach would be especially justifiable if the site's significance is based primarily on the potential information yield associated with the specified component. A grader may be used to remove overburden (and the noncontributing cultural materials it contains) to expose a deeply buried, significant Paleoindian component. Labor intensive hand excavation can be concentrated on the recovery of data from a larger percentage of the significant component than would be possible if the overlying sediments had to be excavated (and the cultural materials and features recorded) as well.

**9.3.1.5 Methods:** The proposed methods specify the requirements of data recovery and analysis relevant to project needs. At a minimum this will include the following:

- A description of the size and placement of excavation units
- The excavation procedure that will be followed including whether arbitrary or natural levels will be used, the size of arbitrary excavation levels, screen size, recording conventions, etc.
- Specification of special sampling techniques such as soil, faunal, etc.
- Mapping procedures
- Analysis procedures including a discussion of the types of analysis anticipated, the methods and techniques that will be used, a description of basic artifact typologies that will be used, etc

**9.3.1.5.1 Interdisciplinary Specialists:** Archaeology is increasingly dependent on specialists in other fields such as geology, sedimentology, palynology, or zoology to provide data that will assist in the interpretation of a particular site. If the services of outside specialists are necessary, these needs must be specified in the research design.

Historians and archival researchers may also be important additions to the research team if the site dates to the historic period. In order to fully realize the research potential of these sites, and to mitigate adverse effects, it is necessary to conduct the requisite documentary research. This may include locating and examining tax rolls, probate records, early maps, diaries or other primary source materials.

Ethnographic or ethnohistoric research may be appropriate to augment the excavation effort when dealing with sites where living descendants of the ethnic groups represented still reside. *For example*, excavations at a Seminole Indian encampment in the Everglades or a cigar worker's house in Ybor City would benefit from ethnographic research and informant interviews in conjunction with historic documents research. Professional ethnographers may also be used to coordinate, consult with, and solicit the views and concerns of affected local groups who may have a direct ethnic or historical relationship to the site being investigated.

**9.3.1.5.2 Problems or Limitations:** Anticipated problems and the recommended procedures for dealing with these should be addressed. *For example*, if water logged deposits are likely to be encountered, then the research design should include a discussion of the methods and equipment that will be used to penetrate deposits located below the water table and for ensuring the integrity of the data collection effort from these deposits. Special techniques for the preservation of waterlogged organic artifacts must also be specified if these are expected to be encountered.

**9.3.1.5.3 Laboratory Analysis:** The popular perception of archaeology as primarily a field endeavor gives the erroneous impression that once fieldwork is completed results and conclusions should follow in quick succession. In reality, much more time is required to properly analyze artifacts and other data than to collect them. A good rule of thumb for evaluating the labor effort that will be devoted to laboratory analysis and report preparation is to calculate the ratio of person hours for these tasks in comparison to fieldwork. If the ratio is less than 3 to 1 (lab to field time), the analysis effort is considered to be inadequate to meet the needs of most excavation projects.

**9.3.1.6 Statement of Expected Results:** The final component of a research design will be a statement of expected results. These will, of necessity, be relatively general in nature. Rarely will actual results completely fulfill initial expectations. Data classes that were expected to be present in certain densities may turn out to be present in amounts too small to address the prestated questions. On the other hand, data classes not previously thought to exist may in fact turn out to be numerous and of great significance thereby forcing a change in the focus of the project. The unexpected discovery of human remains at a site is an example of the kind of fortuitous discovery that is often encountered in archaeology. Thus, any excavation, and hence any research design, must be flexible enough to enable a redirection of effort based on new and unforeseen discoveries.

### **9.3.2 Submittal of a Research Design**

The research design is submitted to the FHWA, FDOT, SHPO, and consulting parties for review prior to the start of fieldwork so that the FDOT Project Manager can evaluate the adequacy of the proposed work effort. In evaluating the research design, the Project Manager should determine whether or not the following questions have been properly addressed:

- Have research questions been explicitly stated? Are these related to the data classes expected at the site, i.e., are the questions answerable?
- Are the methods justifiable and appropriate to the goals of the research?
- Are any special analyses, techniques or equipment required? Are these justifiable and appropriate to the goals of the project?
- Has sufficient time and labor been allocated for analysis in comparison to data collection?

The research design should be concise, organized, and well thought out. Although demonstrated knowledge of previous research is desirable, elaborate discussions of archaeological theory are inadequate substitutes for a concise statement of research goals and a complete description of the approach and methods that will be used to achieve these goals.

## **9.4 EXCAVATION PROCEDURES**

The excavation process involves the collection and recording of artifacts, features, and other relevant data in both their horizontal and vertical contexts. The horizontal or spatial dimension preserves contemporary relationships among artifacts that enable the reconstruction of activities conducted at a site at specific points in time. The vertical dimension preserves the temporal relationships among artifacts, features, and occupational strata from which a developmental history of the site can be reconstructed.

Regardless of the type of site to be excavated, all excavation projects minimally contain the following components:

- Topographic mapping
- Establishment of an excavation grid system
- Broad scale testing to determine site boundaries and/or artifact and feature concentrations
- Data recovery through controlled excavation
- Detailed data recording

### **9.4.1 Topographic Mapping**

The first phase of an excavation involves the generation of a topographic map and the establishment of a permanent site datum. A surveyor's transit is used to transfer a known elevation from a nearby benchmark (USGS, county, or other) to the site datum. This establishes the datum

plane from which all subsequent vertical measurements are referenced. If no benchmark is located nearby, an arbitrary elevation is assigned to the site datum until such time as a true elevation can be established. The topographic survey results in an accurate map of the landscape on which all subsequent artifact and feature distribution data are plotted. Topographic maps of the site available from other sources may be substituted and used to locate excavation units and major features if they are at a scale of 1"=100' (33.3 m) or larger and show elevation changes at a contour interval of no greater than 1 foot (0.3 m). However, because subtle changes in elevation, which may appear insignificant to a land surveyor or engineer, may be of importance in identifying archaeological site features, it is usually preferable to have a topographic map generated specifically for archaeological use.

#### **9.4.2 Grid Systems**

A master grid system is used for the purpose of horizontal control during excavation. All excavation units, shovel tests, and test trenches are referenced according to this grid system. Grid systems are used in archaeology for two primary reasons: to facilitate accurate three-dimensional recording of artifact and feature locations, and to allow for the orderly expansion of the excavation. A coordinate system using numerical and directional designations for each grid intersection (e.g., 100N/100E) is used since this allows unlimited and orderly expansion in all directions. The same coordinate system can be used to record the locations of artifacts and features found within specific excavation units.

The excavation grid is located in reference to a known location in space. The recommended procedure is to establish a base line along an existing section line, property line or centerline of a major road, and tie in all excavation units relative to this base line using a surveyor's transit. Alternatively, an arbitrary base line can be established oriented to one of the cardinal directions, and then tied into a USGS benchmark or other immovable landmark via triangulation.

#### **9.4.3 Broad Scale Testing**

The third phase usually involves some form of broad scale testing to identify or refine site boundaries and determines the locations of activity areas, artifact concentrations or subsurface features within the site universe. This phase is required if a purposive sampling design is planned since it will provide the information necessary to make decisions regarding the placement of excavation units and test trenches. Although the identification of intrasite features and concentrations is not mandatory if a probabilistic sampling design is planned, delimiting the boundaries of the site is necessary in order to establish the size of the sampling universe. If these have not been firmly established during the CRAS survey, then sufficient subsurface testing to establish these boundaries within the confines of the transportation impact area is conducted.

For most sites, the preferred method for implementing a broad scale testing program is the use of hand excavated shovel tests. These are either round (0.5 m in diameter) or square (0.5 x 0.5 m) and shall extend to a depth of at least 1 m below ground surface unless prevented by impenetrable soil conditions. At sites where subsurface materials are particularly dense, such as shell or black earth middens, 0.15 m (6 in) in diameter posthole diggers may be substituted if the goal of

the testing program is simply the identification of site boundaries. Mechanical augers may also be used where artifact density is relatively great and large areas must be covered. However, it is not possible to maintain vertical control with either of these alternative methods, and if used, they must be supplemented with either 0.5 m diameter round or 0.5 x 0.5 m square tests excavated by levels to provide stratigraphic information.

The distance between individual tests is dependent on the type of site, the size of the area to be investigated, and the presumed density of subsurface materials. It is also dependent on the goal of the broad scale testing. If the goal is to identify site boundaries, and artifact density is relatively great, then larger intervals may be used. If artifact density is relatively low or is variable across the site, or if the goal of the testing is to identify intrasite activity areas, then smaller test intervals are necessary. However, in no case should test intervals exceed 25 m (82 ft).

Other methods, which may be acceptable under certain conditions, include the use of heavy equipment to excavate test trenches to reveal soil strata or strip off overburden to reveal subsurface features. At sites where artifacts are exposed on the ground surface, controlled surface collections conducted within a grid system may be employed. This last method is particularly useful at late historic period sites where artifacts and features are often at or very near the modern ground surface.

On some types of sites, particularly those where subsurface features are suspected, the use of remote sensing instrumentation such as a magnetometer, electrical resistivity or ground penetrating radar may be employed. The use of these techniques is often a cost-effective way to locate isolated subsurface features such as coquina foundations, tabby walls, brick piers or pilings, and trash pits. Remote sensing also represents a noninvasive technique to help identify cemeteries and human remains. Similarly, stereo pair and false color imagery can assist in the location and identification of mounds, middens, earthworks, canals, and other above ground archaeological features, particularly if obscured from view by vegetation. These techniques can, when appropriate, be utilized to enhance the location of features and to maximize the data collection process.

#### **9.4.4 Data Recovery Through Controlled Excavation**

As previously discussed, data recovery usually entails controlled excavation of a predetermined sample of the site's contents. Depending on the type of site, research questions, and data classes expected, a number of strategies may be used including block excavation, isolated units, and/or linear trenching. If necessary, heavy equipment such as a grader or front end loader can be used to remove overburden. This is a very effective way of quickly removing sterile, disturbed or nonsignificant fill, enabling labor-intensive hand excavation to be focused on those deposits that contain significant data. Whenever heavy equipment is used, archaeologists must be present to monitor the soil removal and record any artifacts or features that are exposed.

Although specific techniques may vary from site to site, all archaeological excavations should conform to the basic practices of data collection and recording. These include the use of standardized excavation units and a grid system, the use of natural or arbitrary levels to maintain vertical control, the screening of excavated soil using a standard 1/4-inch mesh, the careful and

standardized recording of provenience information including maps and stratigraphic profiles, and the maintenance of a complete photographic record of the excavation.

**9.4.4.1 Size of Excavation Units:** The size of excavation units may vary although the most common sizes are 1 x 1 m, 1 x 2 m, 2 x 2 m and 3 x 3 m. The advantage of larger sized squares is that the spatial arrangement of any post molds, fire pits, or other features that are exposed during excavation are easily seen in plan view which facilitates accurate mapping. The disadvantage is that spatial control is compromised for those artifacts that are recovered during screening. This can be overcome by subdividing larger units into smaller blocks (e.g., 1 m or 0.5 m squares) and excavating these separately. Individual excavation units larger than a 3 x 3 m square are discouraged because of the lack of spatial control in the collection of smaller artifacts.

**9.4.4.2 Depth of Excavation Units:** Excavation will continue until at least two sterile levels have been encountered. At sites where Paleoindian or Early Archaic components are suspected, deep coring or the use of backhoe tests to excavate deeply buried soil horizons may be required to ensure that these early and sometimes ephemeral sites are not missed.

**9.4.4.3 Use of Natural Collection Units:** Archaeological excavation takes place within natural units whenever possible. “Natural” means any unit of matter that displays abrupt and observable boundaries. Natural units may include soil stains, distinct strata, pits, graves, mounds, or the rooms of a building. While most “natural” collection units will have had a cultural origin, this may not always be true. *For example*, wind blown sediments, alluvial silts, or storm surges may have created discernible strata and these should be excavated as separate collection units. The reason for specifying the use of natural units is to ensure that artifacts or other materials resulting from different depositional episodes do not become mixed during recovery.

When arbitrary excavation grid units overlie a number of horizontally distinct natural units (sometimes referred to as features), excavation by natural units takes precedence. Thus, the material collected from a trash pit or storage pit is kept separate from the surrounding soil matrix in which the pit intrudes. Similarly, if the walls of a structure are encountered, materials from the outside of the structure are kept separate from those materials collected from the structure’s interior.

The methods used to excavate cultural features depend on the type of feature encountered and the nature of the soil matrix. The preferred method is to pedestal the feature and then excavate half of it to expose a cross-section profile that can be mapped and photographed. The remaining half of the feature can then be excavated as a total sample. This is a particularly effective method when excavating in soft, sandy soils. In more stable soils, feature fill may be removed as a total sample without pedestaling; however, no profiles are possible using this technique.

**9.4.4.4 Vertical Measurements:** All vertical measurements are made in reference to elevation above mean sea level. Vertical control is maintained through the use of a datum plane established with a surveyor's transit.

**9.4.4.5 Excavation Levels:** Once the datum plane has been established, excavation of individual units proceeds by arbitrary levels within natural or cultural stratigraphic zones if they are present. If soil stratification is not observable, arbitrary excavation levels are used to maintain vertical control. The size of the arbitrary levels may vary depending on the vertical segregation of components (which will be determined by the broad scale testing), but in no case will these measure greater than 0.15 m in thickness.

It is not unusual in Florida to have precontact archaeological deposits extend to depths exceeding 2 m below present ground surface. In Florida's sandy soils, the vertical faces of deep excavation units can become unstable and may pose a safety hazard to workers. In order to overcome this problem, a "stair-step" method of excavating is implemented by starting with a large excavation unit and gradually reducing the size at appropriate depth intervals. *For example*, a 3 x 3 m unit may be reduced to 2.5 x 2.5 m at a depth of 0.5 m and reduced again to 2 x 2 m at a depth of 1 m. In addition, ladders of sufficient height and stability to enable excavators to enter and exit deep excavation units safely are necessary.

**9.4.4.6 Screen Size:** All soil is sifted through hardware cloth with a mesh size no greater than 6.4 mm (1/4-inch) to ensure the most complete recovery of artifacts. Large mesh screens are acceptable only when used in conjunction with 6.4 mm screens. Mesh screens smaller than 6.4 mm may be employed at any time and are required for special sampling purposes.

**9.4.4.7 Column Samples:** At sites containing faunal or floral material, at least one column sample is obtained for laboratory analyses. All column samples should measure at least 0.5 x 0.5 m and be excavated according to the same method used for the excavation of general unit levels; that is, by arbitrary levels or natural/cultural stratigraphic zones.

The use of water to assist in the screening process may be advisable in some situations, however, water sprayed under pressure may damage small bones or delicate botanical remains. If such analyses are contemplated, it is best to consult with the zooarchaeologist or archaeobotanist regarding appropriate collection methods.

**9.4.4.8 Procedures for Collecting Artifacts and Samples:** All artifacts recovered during any excavation are placed in collection bags according to provenience. *For example*, artifacts recovered from a general excavation level will be placed together in a general level bag. Artifacts recovered from horizontally distinct cultural features within a level are placed in a separate bag or bags reserved exclusively for that collection unit. Piece plotted artifacts are placed in separate bags with the appropriate provenience information on the bags' exteriors.

All artifact collection bags must be of recyclable polyethylene plastic, at least 4 mm in thickness, and able to be sealed at the top. Paper bags are unacceptable because of the potential for tearing and rapid deterioration, and because they cannot be permanently sealed. Provenience information must be written legibly on the exterior of all collection bags (preferably in the lower left hand corner of the bag) in waterproof ink. At a minimum the following information is required on all collection bags:

- Project name (optional)
- Florida Master Site File number
- Site name (if applicable)
- Provenience information - will vary depending on type of collection unit, but typically will contain the following:
  - Collection unit (e.g., excavation unit, shovel test number, feature number, etc.)
  - Stratigraphic zone or level
  - Depth (e.g., cm below unit datum, elevation above sea level, etc.)
  - Date
  - Excavator's name or initials
  - Field Specimen (FS) number
  - Bag number (e.g., Bag 1 of 3)

Other information may be included as necessary. Column samples, soil samples or feature fill collected as total samples (i.e., without screening and discard of the soil matrix) should be placed in large, heavy (at least 4 mm in thickness) plastic bags with the provenience information legibly marked on the exterior of the bag in waterproof ink. Provenience information is also written on waterproof tags and either tied to the bag or placed inside the bag. In order to ensure against bag failure and loss of the sample, the material may be double bagged. In this case, provenience information is placed on the exterior of both bags.

Charcoal samples intended for radiocarbon dating are placed in aluminum foil with the provenience information written on the exterior of the foil in waterproof ink. The sample is then placed in a plastic collection bag with the appropriate provenience information written on the exterior of the bag as described above. Field specimen number is the same as general provenience of sampling location.

It is important to ensure that any samples that will be submitted to specialists for analysis be collected in an appropriate manner. In cases where special techniques or equipment are required, qualified special consultants (e.g., a geomorphologist) are retained to collect and prepare the necessary samples (see [\*Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines\*](#)).

#### **9.4.5 Recording**

The highest standards of field recording of data are maintained whenever possible; artifacts are recovered and documented in place, their horizontal positions recorded by coordinates in reference to the site grid system, and their vertical position recorded in reference to the site datum plane

(i.e., elevation above mean sea level). Features and artifact concentrations are excavated with hand tools and accurate maps or plans of all excavated features are made.

**9.4.5.1 Use of Standardized Forms:** Standardized forms are used for the recording of excavation and survey (i.e., elevations, angles, distances, etc.) data. These forms may be of variable design and format. Examples of standard level, feature, burial and survey forms are provided as **Exhibits 9.1, 9.2, 9.3, and 9.4**, respectively. Excavation notes on legal paper, notebook paper, or other nonstandardized format are unacceptable. The site supervisor maintains a daily log of activities that discusses the tasks accomplished by excavation unit, problems encountered, significant finds, as well as thoughts and interpretations regarding the site in general. Traditionally, surveyor's field notebooks are used to record daily progress because they are bound and waterproof; a loose-leaf notebook or binder is also acceptable. A Field Specimen (FS) log sheet and a photo log which documents all photographs taken at the site are also maintained. The photo log contains information on the camera used, the type of film used, film speed, aperture setting, the roll number, descriptions of each frame including direction, and the date of the photograph.

**9.4.5.2 Maps and Profiles:** A stratigraphic profile is drawn of at least one wall from each excavation unit and any 0.5 x 0.5 m shovel tests. If walls are noticeably different, more than one profile will be necessary. Floor plans are drawn whenever features or artifact concentrations are encountered, but are not otherwise required for every level of every unit.

All maps must be neatly drawn and legible. The use of symbols is standardized to avoid confusion and misinterpretation. Soil colors are recorded descriptively and by means of a standard Munsell soil color chart. Soil descriptions should conform as much as possible to standard soil classification descriptions (e.g., fine sand, sandy-clay, clayey-loam, silt, etc.).

All maps and profile drawings contain the following standard information:

- Project name
- Florida Site File number
- Site name (if applicable)
- Descriptive map or drawing title
- Provenience information (including depth below surface/datum and/or elevation for plan view maps)
- Date
- Scale
- North arrow (for plan view maps only)
- Key to any special symbols
- Name or initials of excavators

Examples of a stratigraphic profile, feature profile, and excavation floor plan are provided in **Exhibits 9.5, 9.6, and 9.7**, respectively.

**9.4.5.3 Measurements:** Except as noted in this section, the metric system is used for all measurements associated with excavations at precontact archaeological sites and historic archaeological sites of the Spanish Colonial period, including elevations above mean sea level. Exceptions include work conducted at historic archaeological sites containing artifacts, features or structural remains of primarily non-Spanish European, Euro-American or African-American origin. At these sites, the English system of measurement is used.

**9.4.5.4 Photographs:** A complete photographic record of each excavation is maintained using either a traditional 35mm camera or a digital camera. If using a 35mm camera, photographs are taken with both black and white film for prints and color film for slides. For digital cameras, a minimum of 2.5 megapixels (1200 x 600 resolution) is required. Photographs are taken of excavation units as well as to record features, concentrations, isolated finds, and the general work progress. All photographs of stratigraphic profiles and excavation units must contain a north arrow, a scale, and a menu board with the following information:

- Site number
- Provenience
- Brief description (e.g., Feature 6, South wall profile, or Floor at 1.55 amsl).
- Date

A blackboard may be substituted for a menu board provided that the written information is legible and can be clearly discerned from the photo. Photographs containing information written on paper, cardboard or media other than those specified in this section are not acceptable.

## **9.5 ARTIFACT AND DATA PROCESSING AND ANALYSIS**

### **9.5.1 Preliminary Processing and Cataloging**

The purpose of processing and cataloging recovered artifacts and samples is to ensure their continued preservation and prepare them for analysis and eventual curation. The procedures for processing and cataloging the artifacts recovered as a result of any excavation are similar to those used for cultural resource assessment surveys. This includes cleaning, assignment of Field Specimen (FS) numbers, and a general description of materials by provenience.

Preliminary processing of artifacts include the assignment of FS numbers to all artifact bags in the field prior to their removal from a site. Stone and most historic artifacts are washed, cleaned, and re-packaged. Ceramic, bone, and shell artifacts are cleaned and, if necessary, stabilized to prevent deterioration. All washed artifacts are air-dried prior to rebagging. Organic samples suitable for radiocarbon dating are collected and stored separately to avoid contamination. Any artifacts that are removed for display or otherwise separated from their artifact bags with associated provenience information are labeled with the following information:

- State project number
- Field Specimen (FS) number
- Specimen number

### **9.5.2 Artifact and Data Analysis**

Analysis of artifacts and other data is conducted at a level that is necessary and appropriate to meet project needs as dictated by the research questions identified in the project research design and by the data classes recovered during the excavation. Types of analyses will differ in kind and scope as a result of differences in research emphasis. However, in order to ensure comparability of data between sites, a limited set of standard analyses is required for all FDOT-related excavation projects. These are described below for specific data classes. The use of these standard analyses provides a minimum set of comparable data. Their use, however, should not be construed as representing a complete and sufficient analysis of a site's contents. Additional analyses are conducted as necessary to address specific project needs.

#### **9.5.2.1 Lithics:** Standard analyses of precontact lithic artifacts includes:

- Identification of temporally diagnostic tool types
- Morphological and functional classifications
- Debitage attribute analysis (e.g., flake size and amount of dorsal cortex)

All stone tools are described and classified according to basic morphological categories: bifaces, unifaces, modified flakes, utilized flakes, microliths, waste flakes, cores, and hammerstones. Other categories of stone artifacts may be added as appropriate. Those artifacts that can be assigned to existing cultural-temporal typologies are assigned and described. Functional analysis of all identified tools is conducted to the furthest extent possible. At a minimum, edge angle measurements are made of all functional tool edges using a goniometer.

Waste flakes (debitage) are described using a selected number of attributes, including flake size and the amount of dorsal cortex. The raw material type (e.g., chert, coral, etc.) and presence or absence of thermal alteration on individual waste flakes are also recorded. Raw data for all of these analyses are included in the report in tabular format.

Other analyses are implemented as necessary and appropriate to meet project needs. Some types of analyses, e.g., tool use-wear analysis and identification of raw material provenience, require special expertise, equipment and adequate comparative collections. If such special analyses are planned, it must be demonstrated that the analysts possess the necessary training, experience, and equipment to perform such work.

#### **9.5.2.2 Ceramics:** Standard ceramic analysis shall include the following:

- Identification of temporally diagnostic types
- Description of exterior surface treatment

- Description of rim and lip form and orientation

All ceramic sherds are described and classified according to existing cultural-temporal typologies. Formal definitions of ceramic types used in the analysis are referenced and include descriptions of paste, aplastic inclusions, surface treatment and/or decoration, rim and lip treatment and any other criteria necessary for a full, complete, and comparable type description.

Ceramics are common at post-Archaic period sites in Florida, and in some parts of the state (e.g., in the Panhandle region and southwestern Florida), they are as common or more so than lithic artifacts. Much of the utilitarian ware used by precolumbian native peoples consisted of vessels with plain, undecorated surfaces. Chronological analysis of these ceramics is difficult because of the lack of surface decoration, but not impossible. Differences in vessel wall thickness, rim orientation, absolute and relative occurrence of different types of aplastic materials are some of the criteria that can be used to develop ceramic seriations. At sites containing predominately undecorated ceramics, analyses necessary to fully realize the data potential of these artifacts must be conducted.

Other analyses are conducted as appropriate to meet project needs. Some analysis techniques such as the microscopic identification of paste types and aplastic inclusions, or the identification of vessel function, may require special expertise, equipment and comparative collections. If these types of analyses are planned, the individuals conducting the analyses must possess the necessary training, experience, and equipment to perform such work.

**9.5.2.3 Shell and Bone Artifacts:** Shell and bone artifacts are analyzed both macro- and microscopically for traces of wear in order to determine their function. Any decoration or surface treatment are fully described and graphically recorded. These artifacts will be compared to other known assemblages of shell and bone in order to determine chronological and functional associations. All shell tools are classified according to existing typologies.

All bone and shell recovered during the excavation is examined for potential tool manufacturing debitage. An analysis and description of this debris are included as a standard component of any shell or bone artifact analysis.

**9.5.2.4 Historic Artifacts:** Analysis of historic period artifacts includes functional identification and classification, and temporal placement. Artifact identification utilizes standard references for historic artifacts as well as primary source materials such as catalogues, manufacturer's production information, newspaper and magazine advertisements, and discussions with knowledgeable informants.

All historic artifacts should be functionally classified using the following categories as defined by Sprague (*North American Archaeologist* 2:251-261 [1981]):

1. Personal Items - includes items related to clothing, personal adornment, medicine and health, indulgences (e.g., tobacco tins, hip flasks), pocket tools, infant care,

- etc.
2. Domestic Items - includes items such as furnishings, housewares, food containers, cleaning and maintenance items, etc.
  3. Architecture - structures or structural remains, construction materials, plumbing fixtures, illumination and power features, and landscaping features
  4. Transportation - includes vehicles and items associated with their maintenance
  5. Commerce and Industry - includes items associated with agriculture and husbandry, hunting, fishing, timbering, turpentine, mining, construction, manufacturing, commercial services, etc.
  6. Group Services - includes items associated with government administration, education, entertainment, utilities, etc.
  7. Group Ritual - includes religious paraphernalia, public monuments, etc.
  8. Unknowns - unidentifiable objects or objects of unknown function

This system is sufficiently broad and expandable so that other more specialized systems of classification can easily be accommodated or derived from the data presented.

**9.5.2.5 Faunal Analysis:** Faunal remains are important and fragile components of archaeological sites. In order to preserve faunal samples, special care must be taken in their recovery and post-excavation treatment. Faunal material may be recovered from various field proveniences. Shovel tests, features, excavation unit levels, and column sample levels can all yield faunal remains. The majority of faunal samples that will be analyzed in detail come from general excavation levels, column samples or feature fill. Information from these different proveniences complements each other and provides a more complete representation of a site's faunal assemblage.

Faunal remains recovered in general excavation levels will already have been screened through a 6.4 mm (1/4-inch) mesh; therefore, they will not require special laboratory processing and can be analyzed as soon as they are cleaned, air-dried and cataloged. On the other hand, column sample levels and feature fill are typically collected as total samples (i.e., they are not screened in the field) and returned to the lab for detailed processing and analysis. Various methods exist for processing faunal samples and their use will be dictated by the research questions to be addressed and by the preferences of the zooarchaeologist directing the analysis. Controlled experiments have demonstrated, however, that the analysis of faunal remains recovered exclusively from 6.4-mm mesh screens is inadequate since it introduces a bias against small size remains, particularly the small, fragile bones associated with fish. As a result, total samples collected during FDOT-related excavations for the purpose of zooarchaeological analysis should utilize 1.6-mm (1/16-inch) mesh screens. The preferred method of processing the sample material is by screening the sample through graduated, nested screens containing 6.4-mm (1/4-inch), 3.2-mm (1/8-inch), and 1.6 mm (1/16-inch) mesh screens. The screening can be performed dry or wet depending on the nature of the deposits and the preference of the zooarchaeologist. Flotation methods may also be employed depending on the sample. The three size fractions will be bagged and sorted separately. The zooarchaeologist in charge of the analysis may modify this approach to suit the specific research needs of the project. However, any modification or alteration

must be justified in project research design.

The sorting of the faunal remains for each fraction is performed by lab personnel trained in faunal analysis, and is monitored by a lab supervisor trained in zooarchaeological identification. Faunal remains are identified to the lowest possible taxonomic classification. Fragment counts and weights are recorded for the various identified fauna, and MNI (Minimum Numbers of Individuals) counts will also be recorded. Totals, percentages, and estimated biomass for each faunal category are calculated and reported in tabular form. Estimates of species diversity and equitability are also calculated using the Shannon-Weaver Diversity Index and the Sheldon Equitability Index. These represent minimum data requirements for faunal analysis. Other analyses are conducted as appropriate to meet project needs.

**9.5.2.6 Botanical Analysis:** The analysis of botanical remains from archaeological sites is a relatively recent development within the discipline. Because plant remains are extremely fragile and do not preserve well, sample collection, processing and analysis are highly specialized. If botanical remains are expected at a site, and analysis is contemplated, the services of an individual trained in the techniques of archaeobotany should be retained to direct this phase of the project. The archaeobotanist is responsible for directing the collection of samples, processing the samples (including flotation, if necessary), and the identification and analysis of botanical remains.

**9.5.2.7 Data Analysis:** The level of data analysis necessary to meet project needs will be dictated by the research questions identified in the project research design and the data classes recovered by the excavation. Minimally, spatial and vertical patterning in artifact distributions will be identified and analyzed. These are portrayed in tabular and graphic formats as appropriate and are discussed in greater detail in Section 9.6.

## 9.6 EXCAVATION REPORT

All archaeological excavation projects result in a detailed technical report that presents the findings of the excavation clearly, completely, and professionally. The purpose of the report is to preserve for future use by researchers and the interested public, the significant information retrieved from archaeological sites affected by FDOT-related transportation projects. In many cases, the archaeological excavation report will constitute the only record of the site and its contents that will remain for future researchers. Therefore, the report should describe completely, and in a clear and concise fashion, the excavation techniques, recording methods, stratigraphic and spatial relationships, environmental relationships, and analytical techniques employed, and should strive to place the site within its cultural, temporal, and environmental contexts.

The following guidelines for archaeological excavation report content are consistent with [\*Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines\*](#) and the state of Florida's [\*Archaeological Report Standards and Guidelines\*](#) (Chapter 1A-46).

## 9.6.1 Report Contents

The following list includes the basic components of an archaeological excavation report:

- Title Page
- Table of Contents
- Lists of Figures and Tables
- Executive Summary
- Introduction
- Physical Environment
- Research Design
- Methods
- Results
- Summary and conclusions
- References Cited
- Appendices

The content requirements of each are as follows:

**9.6.1.1 Title Page:** The Title Page contains the name of the project, the state project (SP), work program item (WPI) and federal aid project (FAP) numbers, the district for which the report was prepared, the contractor's name and address, and the month and year of submittal. Identification of individual authors on the title page is optional, however, the individual in principal charge of the excavation (i.e., the Principal Investigator) is identified.

**9.6.1.2 Table of Contents:** The Table of Contents contains all major section headings including Appendices and beginning page numbers. It also includes major subheadings within each section and the beginning page numbers for each subheading. If different authors write individual sections, these individuals are identified after the titles of their respective sections.

**9.6.1.3 List of Tables:** All tables in the report are listed with corresponding page numbers. All tables are numbered sequentially. The listing includes the table number and complete table caption. No tables are included that are not referenced in the body of the report.

**9.6.1.4 List of Figures:** All figures in the report are listed with corresponding page numbers. Figures include all graphic materials such as maps, line drawings, graphs and photographs. All figures are numbered sequentially. The listing includes the figure number and complete figure caption. No figures are included that are not referenced in the text of the report.

**9.6.1.5 Executive Summary:** All reports contain a brief summary of the project written in nontechnical language. The summary includes an explanation of why the project was done, what problems or questions were addressed, the results, and management recommendations. The executive summary should not be more than two pages in length.

**9.6.1.6 Introduction:** The Introduction contains a statement of when, why and for whom the excavation was conducted. It identifies the individuals responsible for conducting the fieldwork, analysis, and report preparation. The introduction also includes a description of the nature and extent of the proposed transportation project and associated impacts, a description of their effect on the archaeological site or sites that are the subject of the report, a description of the project location including a project location map, and a description of the archaeological site, a discussion of its significance, and a brief history of previous archaeological work at the site.

**9.6.1.7 Physical Environment:** This section provides a narrative description of the project location and associated environment. The purpose is to recognize the interpretive implications of the site's functional and environmental contexts. Thus, the level of detail and the specific features that may be emphasized in the discussion is left to the judgment of the archaeologist. At a minimum, this section should provide sufficient information so that the reader is able to understand the relationship of the site to its natural setting. If such information already exists, then it may be summarized; however, as discussed in the previous Research Design section (9.3), specialists in the fields of palynology, geology, sedimentology, botany, biology, zoology, or hydrology may be necessary to provide the required information.

This section also contains a discussion of historic land use patterns and the effect of these on the archaeological deposits contained at the site. For precontact sites, the changes that have occurred in the environment over the past 10-12,000 years may be relevant to an adequate interpretation of the site and its features. *For example*, for sites located in coastal areas, the effects of sea level change through time would be of considerable importance in understanding why and when the site was occupied, as well as factors related to the subsistence adaptation of the site's inhabitants. For interior sites, sea level change may be less important for understanding site use than climatic changes that have affected precipitation and surface water availability. It should be reviewed and summarized to the extent that this type of paleoenvironmental information is available.

**9.6.1.8 Research Design:** The research design provides the overall plan for the excavation and includes a statement of relevant problems or research questions addressed, a description of relevant data classes, and specification of how results are to be evaluated. This section also includes any pertinent background or documentary research relevant to the development of the research design. Any changes or modifications to the research design resulting from consultation with the FDOT Project Manager, or changes in field strategy dictated by unforeseen discoveries or problems, should be addressed in this section. Any constraints on the investigation such as limitations of access, or inclement weather should also be discussed.

**9.6.1.9 Methods:** This section presents a detailed discussion of the specific methods employed to conduct the excavation and data analyses. General laboratory processing, cataloging, and preliminary analysis methods are presented in this section. Methods asso-

ciated with special analyses (e.g., radiocarbon dating, palynology, soils analysis, lithic use wear analysis, etc.) may be presented separately in the appropriate sections of the report.

**9.6.1.10 Results:** This section of the report will typically be the most variable as it is dependent on the type of site, the nature of the research design, and the data classes recovered and analyzed. It should include both description and interpretation. At a minimum, all reports shall contain the following information:

- A description of site stratigraphy
- A discussion of site formation and transformation processes
- A description of all excavated features
- A description of artifact classes
- Reports of any special analyses such as botanical, faunal, soils, etc.
- A discussion of spatial and temporal distributions
- A section that summarizes the results in an interpretive framework

**9.6.1.10.1 Stratigraphy:** The presentation of site stratigraphy includes a formal description of each of the major strata (cultural and/or natural) encountered. Representative profiles showing the stratification of the site shall be included. These shall be clearly keyed to the discussion of strata in the text. This section may also include the results of any soils analyses, chemical analyses, or other analyses necessary to supplement the discussion of stratigraphy; representative soil profiles shall be included in the report.

**9.6.1.10.2 Site Formation and Transformation:** The report includes a discussion of the processes (both cultural and natural) that resulted in site formation, burial and preservation, as well as a discussion of any post-depositional processes that have altered the site.

**9.6.1.10.3 Features:** Typical features include storage pits, hearths, postholes and molds, structural remains, burials or any other collection unit with discrete boundaries. Such excavated features are described in terms of their overall dimensions (length, width, thickness or depth), top and bottom elevation, shape, contents, stratigraphic association, function and dating. If many features are excavated, these may be grouped together by general class (e.g., “oval, basin-shaped pits” or “post molds”) and each group can then be described in detail. In this case, descriptive data for individual features may be presented in a table included in either the body of the report or in an appendix. Plan views and profiles of representative features (preferably at least one example of each identified class) are included in the report.

**9.6.1.10.4 Artifacts:** All artifact classes are described in detail. Many artifacts will occur in numbers too numerous to enable individual artifact descriptions. These artifacts (e.g., ceramic sherds, lithic waste flakes, iron nails, bottle glass, etc.) may be described as a general class. Temporally diagnostic artifacts or artifacts of a special or unique character should be described in more detail using standard descriptive tech-

niques. The use of tables is encouraged for the presentation of quantitative data on individual artifacts and for summary data on general artifact classes.

Complete provenience information is provided for all artifacts recovered from the site. This can be in the form of a table with raw counts of different artifact classes provided for each excavated provenience including individual excavation levels, features, surface collections, shovel tests and test trenches. Since these data are likely to be quite extensive, they should be presented in an appendix.

**9.6.1.10.5 Special Analyses:** If any special analyses were conducted (e.g., faunal, botanical, soils, radiocarbon dating, etc.), the results of these analyses are also included in the report. Depending on the level of detail involved, these may require separate sections. Any special methods not described in the general methods section should be presented with these analysis results.

**9.6.1.10.6 Spatial and Temporal Distributions:** The spatial and temporal distributions of artifacts, ecofacts and features are described and discussed. These may be discussed in separate sections associated with various artifact or other data classes, or together in a section that integrates these data and discusses their relationships.

**9.6.1.10.7 Interpretation:** All reports contain a section that summarizes the excavation and various analysis results within an interpretive framework. Typically, this will involve a narrative discussion of the site's chronological, functional, and organizational reconstruction based on the data derived from the excavation and analysis. Additionally, the report should compare the results of the project to the expectations of the research design.

**9.6.1.11 Summary and Conclusions:** This section includes a summary of the major results of the excavation and evaluates these results in light of the expectations presented in the research design. When results fail to match the expectations, some discussion of why this may have been the case is warranted including suggestions for further research.

**9.6.1.12 References Cited:** All references cited in the text of the report should be listed alphabetically following the format used in the journal [\*American Antiquity\*](#).

**9.6.1.13 Appendices:** All reports should include updated Florida Master Site File forms in an appendix for the excavated site and a glossary of special terms. Other appendices may include data tables or special reports that are too long for the body of the report, or that provide background information not directly relevant to the report.

## **9.6.2 Format Specifications**

All reports are bound and printed on 8.5 x 11 inches, high quality, recycled white paper, single-spaced with 1-inch margins. Type size will be no smaller than 10 point. Page numbers appear in the lower right hand corner of all pages except page 1 of the Introduction, which will not be paginated.

All pages preceding page 1 will be paginated in lower case Roman numerals with the numbers appearing in the lower right hand corner of each page except for page I (Title Page), which will not be paginated. In addition, all final reports may be submitted on 3.5-inch disks in Word Perfect or ASCII format.

**9.6.2.1 Measurements:** Except where noted, all measurements will be reported in metric. At the author's discretion, English equivalents may be used in parentheses immediately following a metric measurement. For reports dealing with Euro-American or African-American historic archaeological sites, English measurements shall be used. At the discretion of the author, metric equivalents may be included in parentheses.

**9.6.2.2 Citations and Footnotes:** Citations to published books, articles, reports or other documents will follow the format of the journal *American Antiquity*. Footnotes or endnotes are not used.

**9.6.2.3 Scientific Names:** When identifying faunal or floral species, both the scientific and common names are used initially with all subsequent references restricted to the common name. In tables, the scientific and common names shall both be used, if practicable. If the use of both names is not practicable due to space restrictions, then the use of scientific names should take precedence. A separate table that lists the scientific and common names of flora and fauna discussed in the report is recommended. All genus and species names are either underlined or italicized.

**9.6.2.4 Radiocarbon Dates:** FDOT encourages the reporting of dendro-calibrated radiocarbon dates. If radiocarbon ages have been calibrated, the calibration method used to determine the dates is reported. The conventional radiocarbon age in years before present (BP [1950]) should be presented in a table with its associated 1 sigma standard deviation. The table also includes the calibrated date with its associated 1 sigma and 2 sigma standard deviations and ranges. Discussion of calibrated radiocarbon dates in the text should identify the dates as calibrated and should focus on the 2 sigma calibrated range. Uncalibrated dates should be identified as such and reported in years BP.

**9.6.2.5 Tables and Figures:** Only tables or figures specifically referred to in the text of the report are included. All tables are numbered consecutively and each individual table will have a brief descriptive caption. Each table will appear in the body of the report as near as possible to its reference in the text. Overly large tables are discouraged. It is recommended that tables in the text be used for summaries of large data sets with raw data presented in an appendix. Figures will be similarly numbered in consecutive order, will include a brief caption, and will appear as near as possible to the reference of that figure in the text. Additionally, all figures including photographs will be contained within a border with the caption and figure number located below and outside of the border. Corporate logos do not appear on any figures. All maps must include a north arrow and scale. All scales are in meters and feet. Exceptions include photocopies of maps (such as historical maps or USGS quadrangle maps) that include scales that are in feet only. Although oversize figures are discouraged, fold out figures up to 11 x 17 inches in size are acceptable.

**9.6.2.6 Photographs:** Original photographs included in reports are black and white, printed on high quality, durable fiber-based on resin-coated papers. Photographs may be no smaller than 3 x 5 inches and no larger than 8 x 10 inches. All photographs are permanently attached to the page with a spray adhesive. Tape or glue is not acceptable. All photographs should be contained within a border with a figure number and caption below and outside of the border.

### **9.6.3 Report Submittal**

Two copies of the final draft report will be submitted to the FDOT Project Manager for review and comment. After receipt of comments and incorporation of any changes into the report, six copies of the final report will be submitted. Of these, two will include original photographs. A completed Survey Log Sheet will accompany all final reports. The log sheet is not bound within the report, but is submitted as a separate document.

A brief **abstract** is prepared for inclusion in a statewide database of cultural resources reports compiled by the Florida Museum of Natural History. The abstract will be in the format of an annotated bibliography and will include the following information: authors (last name first), year, title, a brief (one paragraph) narrative summary including a description of what was done, geographic location (include county), what was found, and its significance to Florida archaeology (include culture name or names).

## **9.7 CURATION**

At the completion of the project, all artifacts, original notes, maps, photographs, and other data are prepared for permanent storage and curation. Artifacts are placed in FDOT approved storage boxes with the following information written on the exterior of each box:

1. State project number(s)
2. Project name(s)
3. Florida Master Site File number(s)
4. List of FS numbers included in the box

***The Section 106 process is not complete until artifacts and records are submitted to the Department-designated repository for permanent curation.***

If artifacts or samples from more than one site or project are contained within a single box, the artifacts and/or samples for each site or project must be packaged separately in 2 mm, polyethylene plastic bags with appropriate project information (i.e., items 1-4 listed above) clearly marked on the exterior of each bag.

A typed Field Specimen (FS) log sheet that contains each individual FS listed in numerical order with a brief description of the contents of each bag is submitted to the FDOT along with the boxed artifacts for each site or project. In addition, a typed catalog of all materials (artifacts and other data) transmitted to the FDOT is prepared and submitted.

Prior to delivery to the FDOT, all artifacts are cleaned, dried, stabilized, packaged, and sealed in 2 mm, recyclable, polyethylene plastic bags with provenience information and FS numbers clearly and legibly marked on the exterior of each bag in water proof ink. Any samples requiring special treatment are packaged separately and the special instructions are written on the exterior of the storage box and noted on the typed catalog.

All original fieldnotes, maps, photographs, and other documentation are to be delivered to the FDOT. Fieldnotes, plan view maps, and stratigraphic profiles should be placed in three-ring binders. Any oversize maps or aerial photographs are rolled and stored in cardboard map tubes. Additional copies of any notes, maps, photographs or other documentation for use in future research can be prepared.

## **9.8 FEATURED HYPERLINKS**

American Antiquity

<http://www.saa.org/publications/StyleGuide/saaguide.pdf>

Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines

[http://www.cr.nps.gov/local-law/arch\\_stnds\\_9.htm](http://www.cr.nps.gov/local-law/arch_stnds_9.htm)

Archaeological Report Standards and Guidelines

[http://www.cr.nps.gov/local-law/arch\\_stnds\\_7.htm#guide](http://www.cr.nps.gov/local-law/arch_stnds_7.htm#guide)

Chapter 267, Florida Statutes: Historical Resources

Chapter 872, Florida Statutes: Offenses Concerning Dead Bodies and Graves

Chapter 872.05, Florida Statutes: Unmarked Human Burials

<http://www.leg.state.fl.us/Statutes/index.cfm?Tab=Statutes&Submenu=1>

DHR Compliance Review Section

<http://dhr.dos.state.fl.us/bhp/compliance/>

DHR Florida's Historic Contexts

[http://dhr.dos.state.fl.us/bar/hist\\_contexts/comp\\_plan.pdf](http://dhr.dos.state.fl.us/bar/hist_contexts/comp_plan.pdf)

Underground Facility Damage Prevention and Safety Act ("Dig Safe")

[http://www.flsenate.gov/Statutes/index.cfm?mode=View%20Statutes&SubMenu=1&App\\_mode=Display\\_Statute&Search\\_String=&URL=CH0556/Ch0556.HTM](http://www.flsenate.gov/Statutes/index.cfm?mode=View%20Statutes&SubMenu=1&App_mode=Display_Statute&Search_String=&URL=CH0556/Ch0556.HTM)

**EXHIBIT 9.1**  
**EXAMPLE EXCAVATION LEVEL FORM**

LEVEL FORM

SITE \_\_\_\_\_

DATE \_\_\_\_\_ AREA \_\_\_\_\_ UNIT \_\_\_\_\_ SIZE \_\_\_\_\_ DATUM \_\_\_\_\_

LEVEL \_\_\_\_\_ ZONE \_\_\_\_\_ DEPTH B.S. \_\_\_\_\_

ROD READINGS

TOP: NE \_\_\_\_\_ NW \_\_\_\_\_ SW \_\_\_\_\_ SE \_\_\_\_\_

EXCAVATORS \_\_\_\_\_

GENERAL OBSERVATIONS (natural contents, cultural contents, etc.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FEATURES

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SOIL DESCRIPTION (color, texture, etc.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

GENERAL LEVEL ARTIFACT BAGS: FS #s \_\_\_\_\_

FINE SCREEN (1/16" mesh): FS # \_\_\_\_\_



PLEASE COUNT ALL ARTIFACT CLASSES RECOVERED

LITHICS: DEBITAGE \_\_\_\_\_ TOOL FORMS \_\_\_\_\_

ABO. CERAMICS \_\_\_\_\_

SHELL: FOOD REMAINS \_\_\_\_\_ TOOLS \_\_\_\_\_ FILL \_\_\_\_\_

FAUNAL REMAINS \_\_\_\_\_ BONE TOOLS \_\_\_\_\_

HUMAN REMAINS \_\_\_\_\_

HISTORIC: GLASS \_\_\_\_\_ CERAMIC \_\_\_\_\_ METAL \_\_\_\_\_ OTHER \_\_\_\_\_

MODERN DEBRIS: BUILDING MTLs \_\_\_\_\_ GLASS \_\_\_\_\_ METAL \_\_\_\_\_

PLASTIC \_\_\_\_\_ OTHER \_\_\_\_\_

OTHER \_\_\_\_\_

REMARKS \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

PHOTOS: B/W ROLL # \_\_\_\_\_  
COLOR SLIDE ROLL # \_\_\_\_\_

FRAME(S) # \_\_\_\_\_  
FRAME(S) # \_\_\_\_\_

**EXHIBIT 9.2**  
**EXAMPLE EXCAVATION FEATURE FORM**

**ARCHAEOLOGICAL FEATURE DATA FORM**

Feature # \_\_\_\_\_

Site \_\_\_\_\_ Unit \_\_\_\_\_ Datum \_\_\_\_\_

Level \_\_\_\_\_ Zone \_\_\_\_\_ Depth B.S. \_\_\_\_\_ Depth B.D. \_\_\_\_\_

**Elevations:**

Top: NE \_\_\_\_\_ NW \_\_\_\_\_ SW \_\_\_\_\_ SE \_\_\_\_\_ Center \_\_\_\_\_  
Bottom: NE \_\_\_\_\_ NW \_\_\_\_\_ SW \_\_\_\_\_ SE \_\_\_\_\_ Center \_\_\_\_\_

**Dimensions:**

Maximum Length \_\_\_\_\_ Direction \_\_\_\_\_  
Maximum Width \_\_\_\_\_ Direction \_\_\_\_\_

**Definition/Description (shape, consistency, soil color, nature of deposit):**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Description of Removal (Methodology):**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Cultural Material:** # of bags \_\_\_\_\_ FS #s \_\_\_\_\_

|          |       |       |       |
|----------|-------|-------|-------|
| Lithics  | _____ | Glass | _____ |
| Ceramics | _____ | Metal | _____ |
| Shell    | _____ | Other | _____ |
| Bone     | _____ |       | _____ |

| Samples   | Sample # | Provenience | Matrix |
|-----------|----------|-------------|--------|
| Soil      | _____    | _____       | _____  |
| Flotation | _____    | _____       | _____  |
| C-14      | _____    | _____       | _____  |
| _____     | _____    | _____       | _____  |

**Comments:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Map # \_\_\_\_\_ Photo Roll A \_\_\_\_\_ Frame(s) \_\_\_\_\_  
Photo Roll B \_\_\_\_\_ Frame(s) \_\_\_\_\_

Recorded by: \_\_\_\_\_ Date \_\_\_\_\_

**ARCHAEOLOGICAL FEATURE DATA FORM**

**Screened Samples**

Level \_\_\_\_\_ Below Datum \_\_\_\_\_ FS # \_\_\_\_\_

Cultural Material \_\_\_\_\_

Level \_\_\_\_\_ Below Datum \_\_\_\_\_ FS # \_\_\_\_\_

Cultural Material \_\_\_\_\_

Level \_\_\_\_\_ Below Datum \_\_\_\_\_ FS # \_\_\_\_\_

Cultural Material \_\_\_\_\_

Level \_\_\_\_\_ Below Datum \_\_\_\_\_ FS # \_\_\_\_\_

Cultural Material \_\_\_\_\_

Level \_\_\_\_\_ Below Datum \_\_\_\_\_ FS # \_\_\_\_\_

Cultural Material \_\_\_\_\_

Level \_\_\_\_\_ Below Datum \_\_\_\_\_ FS # \_\_\_\_\_

Cultural Material \_\_\_\_\_

**TOTAL SAMPLES**

Level \_\_\_\_\_ Depth Below Datum \_\_\_\_\_ FS # \_\_\_\_\_

Level \_\_\_\_\_ Depth Below Datum \_\_\_\_\_ FS # \_\_\_\_\_

Level \_\_\_\_\_ Depth Below Datum \_\_\_\_\_ FS # \_\_\_\_\_

Level \_\_\_\_\_ Depth Below Datum \_\_\_\_\_ FS # \_\_\_\_\_

Level \_\_\_\_\_ Depth Below Datum \_\_\_\_\_ FS # \_\_\_\_\_

Level \_\_\_\_\_ Depth Below Datum \_\_\_\_\_ FS # \_\_\_\_\_

**Comments**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**EXHIBIT 9.3**  
**EXAMPLE EXCAVATION BURIAL FORM**

Excavation Burial Form

Date \_\_\_\_\_

Project # \_\_\_\_\_

Site # \_\_\_\_\_

Burial # \_\_\_\_\_

Unit(s) # \_\_\_\_\_

Excavator \_\_\_\_\_

Recorder \_\_\_\_\_

I. LOCATION

Depth: Top \_\_\_\_\_ (b.d., b.s.) Bottom \_\_\_\_\_ (b.d., b.s.)

Level(s): \_\_\_\_\_ Zone(s): \_\_\_\_\_

Center point (north): \_\_\_\_\_ Center point (east): \_\_\_\_\_

Distribution: Maximum north: \_\_\_\_\_ Minimum north: \_\_\_\_\_

Maximum east: \_\_\_\_\_ Minimum east: \_\_\_\_\_

II. DESCRIPTION:

Type: \_\_\_\_\_ articulated \_\_\_\_\_ disarticulated \_\_\_\_\_ flexed  
\_\_\_\_\_ semiflexed \_\_\_\_\_ extended \_\_\_\_\_ primary  
\_\_\_\_\_ secondary

Minimum Number of Individuals: \_\_\_\_\_

Completeness: \_\_\_\_\_ complete \_\_\_\_\_ cranium missing  
\_\_\_\_\_ hands/feet missing \_\_\_\_\_ limb(s) missing  
\_\_\_\_\_ most of individual missing

Preservation: \_\_\_\_\_ excellent \_\_\_\_\_ good \_\_\_\_\_ fair \_\_\_\_\_ poor  
\_\_\_\_\_ varied \_\_\_\_\_ very poor

Disturbances: \_\_\_\_\_ intrusion from another burial (number: \_\_\_\_\_)  
\_\_\_\_\_ rodent/animal burrows \_\_\_\_\_ pot hunting  
other: \_\_\_\_\_

Pelvis to Cranium orientation:

\_\_\_\_\_ north \_\_\_\_\_ northeast \_\_\_\_\_ east  
\_\_\_\_\_ southeast \_\_\_\_\_ south \_\_\_\_\_ west  
\_\_\_\_\_ southwest \_\_\_\_\_ northwest

Compass direction: \_\_\_\_\_

Placement: \_\_\_\_\_ left side \_\_\_\_\_ right side \_\_\_\_\_ back  
\_\_\_\_\_ sitting \_\_\_\_\_ disarticulated \_\_\_\_\_ stomach  
\_\_\_\_\_ unknown  
other: \_\_\_\_\_

Sex: \_\_\_\_\_ male \_\_\_\_\_ female \_\_\_\_\_ indeterminant adult  
\_\_\_\_\_ unknown \_\_\_\_\_ indeterminant subadult

**Excavation Burial Form**

Age: \_\_\_\_\_ infant (0-2) \_\_\_\_\_ subadult (2-18) \_\_\_\_\_ young adult  
\_\_\_\_\_ adult (25-40) \_\_\_\_\_ older adult 40+

Estimate of age: \_\_\_\_\_

**III. BURIAL FEATURES**

Burial pit: \_\_\_\_\_ no pit discernable \_\_\_\_\_ vague outline of pit  
\_\_\_\_\_ complete pit \_\_\_\_\_ distinctive pit

Matrix around burial: \_\_\_\_\_ midden \_\_\_\_\_ burial mound  
\_\_\_\_\_ soil \_\_\_\_\_ living floor  
\_\_\_\_\_ other: \_\_\_\_\_

Matrix in burial: \_\_\_\_\_ soil \_\_\_\_\_ midden  
\_\_\_\_\_ other: \_\_\_\_\_

**IV. CULTURAL MATERIAL**

Lithics: \_\_\_\_\_  
\_\_\_\_\_

Faunal: \_\_\_\_\_  
\_\_\_\_\_

Flora: \_\_\_\_\_  
\_\_\_\_\_

Other: \_\_\_\_\_  
\_\_\_\_\_

**V. SAMPLES:**

**Soil sample:**

Provenience: \_\_\_\_\_ Depth: \_\_\_\_\_ Amount: \_\_\_\_\_

Description: \_\_\_\_\_

**c14 sample:**

Provenience: \_\_\_\_\_ Depth: \_\_\_\_\_ Amount: \_\_\_\_\_

Description: \_\_\_\_\_

**Special sample:**

Provenience: \_\_\_\_\_ Depth: \_\_\_\_\_ Amount: \_\_\_\_\_

Description: \_\_\_\_\_

**VI. DATA RECORDING**

Photographs: roll number \_\_\_\_\_ exposures \_\_\_\_\_

Maps/Diagrams: page number \_\_\_\_\_

**EXHIBIT 9.4**  
**EXAMPLE SURVEY FORM**

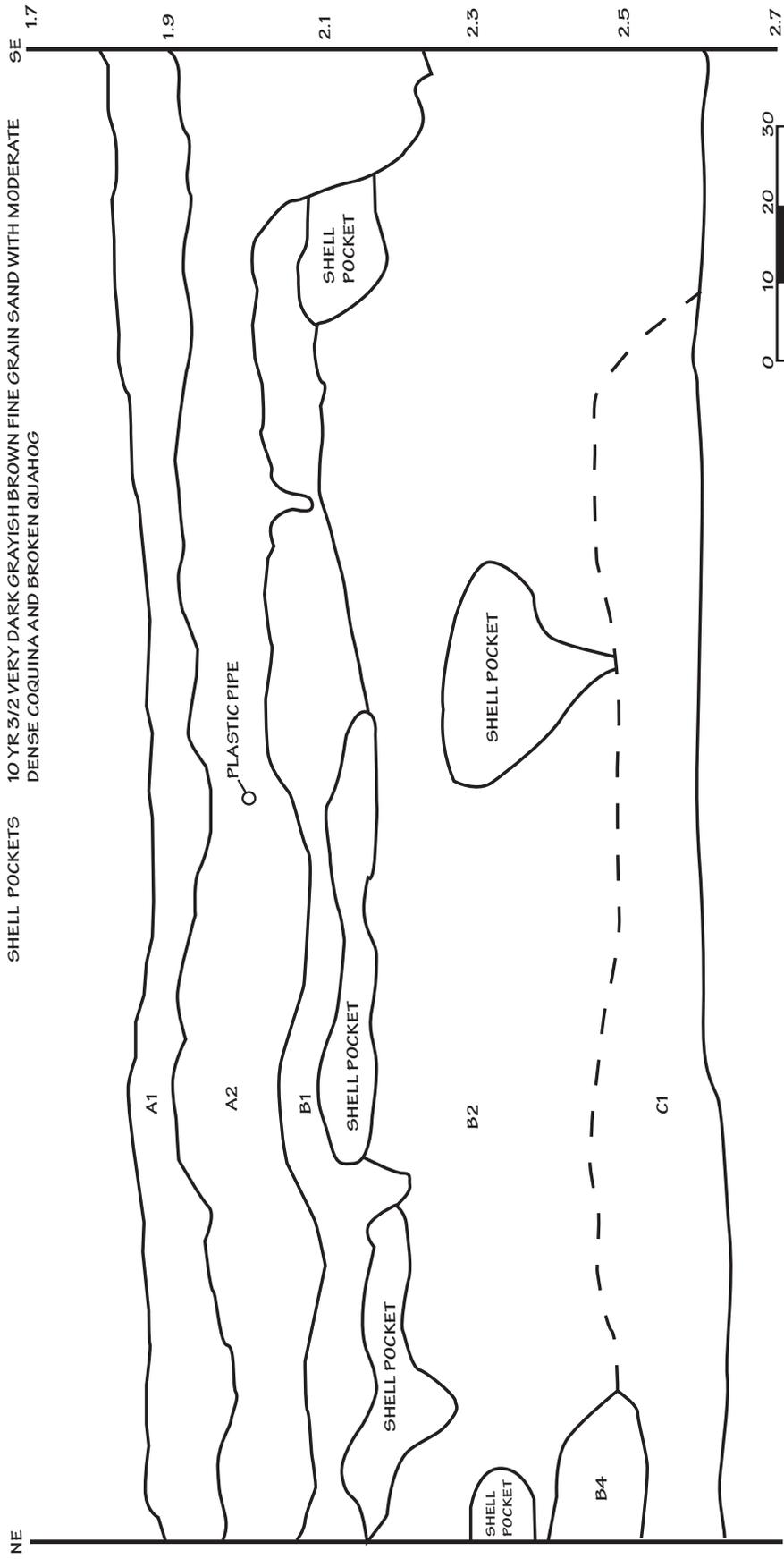


**EXHIBIT 9.5**  
**EXAMPLE STRATIGRAPHIC PROFILE DRAWING**

**SOIL DESCRIPTIONS**

- ZONE A1 10 YR 7/1 VERY DARK GRAY DISTURBED FINE GRAIN SAND
- ZONE A2 10 YR 3/3 PALE BROWN DISTURBED FINE GRAIN SAND
- ZONE B1 10 YR 6/6 BROWNISH YELLOW FINE GRAINED SAND WITH MINIMAL SHELL
- ZONE B2 10 YR 3/2 VERY DARK GRAYISH BROWN FINE GRAIN SAND WITH SOME SHELL
- ZONE B4 10 YR 6/2 LIGHT BROWNISH GRAY FINE GRAIN SAND
- ZONE C1 10 YR 5/2 GRAYISH BROWN MOIST FINE GRAIN SAND MOTTLED WITH 10 YR 6/6
- SHELL POCKETS 10 YR 3/2 VERY DARK GRAYISH BROWN FINE GRAIN SAND WITH MODERATE DENSE COQUINA AND BROKEN QUAHOG

MAP: 50  
 LOCATION: COBBLESTONE VILLAGE  
 SITE: 8V0634  
 UNIT: TU108N-152E  
 DATE: 2-10-94  
 DESCRIPTION: EAST WALL PROFILE



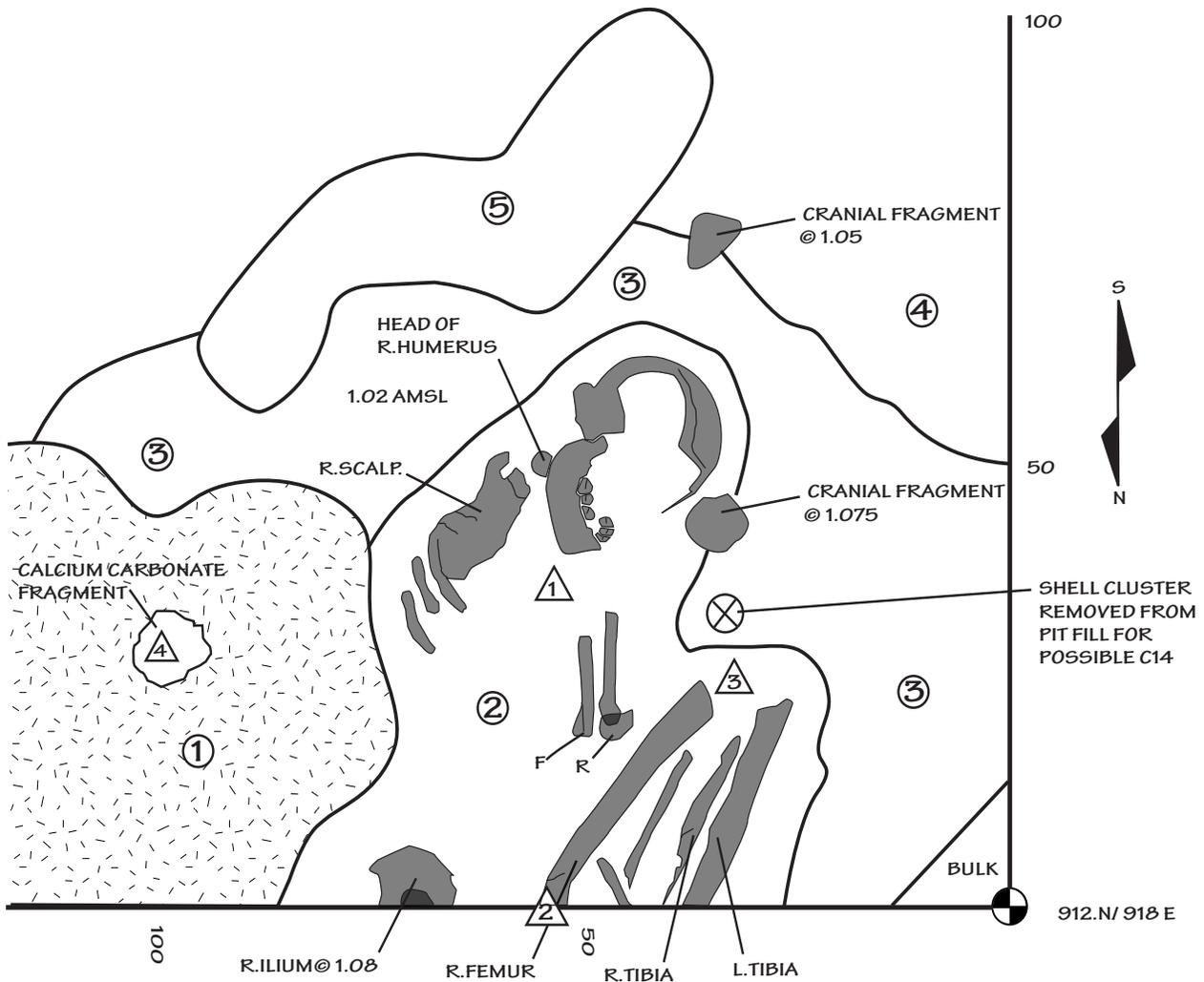
**EXHIBIT 9.6**  
**EXAMPLE FEATURE DRAWING**

BURIAL #1 IS WELL PRESERVED, TIGHTLY FLEXED PRIMARY BURIAL. THE BURIAL IS LAYING LEFT SIDE DOWN AND HAS THE KNEES DRAWN UP CLOSE TO THE TORSO. THE BURIAL HAS BEEN PREVIOUSLY DISTURBED, PROBABLY BY NATURAL CAUSES (IE. ROOTS, ANIMAL BURROWS) NO PREHISTORIC GRAVE GOODS OR INTRUSIVE HISTORIC ARTIFACTS WERE RECOVERED.

THE MANDIBULAR TEETH WERE EXPOSED AND ARE WORN DOWN FLAT TO THE PULP CAVITY. THE TEETH ARE ADULT TEETH. THE MANDIBLE IS NOT ROBUST AND THE CHIN IS ROUNDED OFF (IE. POSSIBLE ADULT FEMALE)

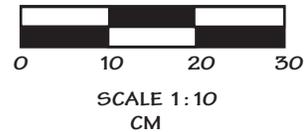
MAP: 12  
 LOCATION: YAT KITISCHEE  
 SITE: 8P11753  
 UNIT: 910N-918E  
 DATE: 7-1-94  
 DESCRIPTION: BURIAL #1

FLOOR @ =1.02 AMSL  
 MANDIBLE  $\triangle 1$  =1.06 AMSL  
 R. FEMUR  $\triangle 2$  =1.05 AMSL  
 R. FEMUR  $\triangle 3$  =1.00 AMSL  
 CALCIUM CARBONATE FRAGMENT  $\triangle 4$  =1.0 AMSL



**DESCRIPTIONS**

- ① 10 YR 3/1 VERY DARK GRAY SOIL WITH HEAVY SHELL AND CALCIUM CARBONATE
- ② 10 YR 3/1 WITH GRAY SAND MIXED IN, HEAVY SHELL, PROBABLE BURIAL PIT
- ③ 10 YR 3/1 WITH MODERATE SHELL (ZONE B1) PROBABLE BASE OF MIDDEN
- ④ 10 YR 4/1 DARK GRAY SAND WITH SPARSE SHELL (ZONE B3)
- ⑤ MOTTLED 10 YR 4/1 AND 10 YR 7/1 (DISTURBED AREA WITH DARK/ LIGHT GRAY SAND AND MODERATE SHELL)



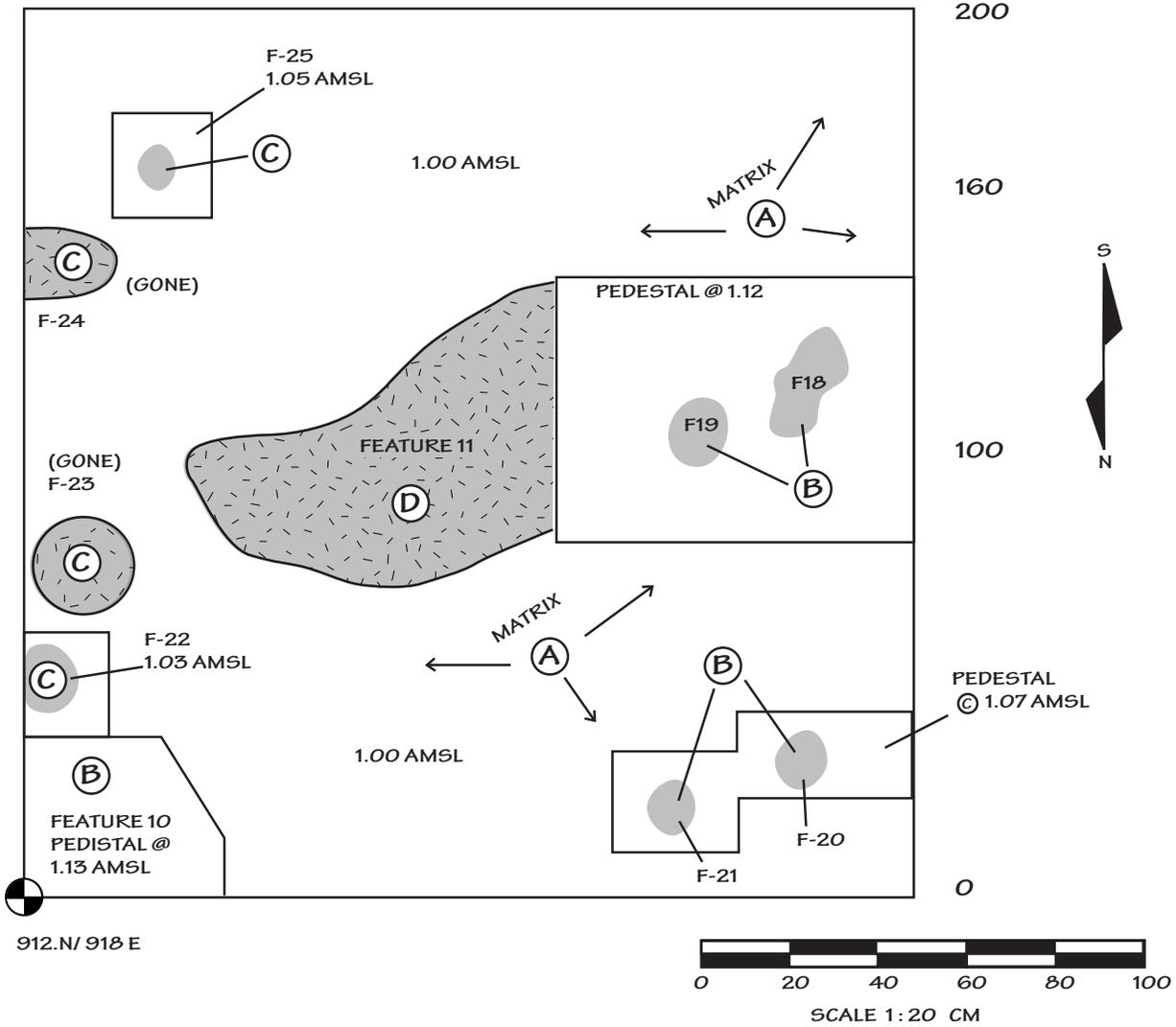
**EXHIBIT 9.7**  
**EXAMPLE EXCAVATION FLOOR PLAN**

(ZONE B3/ C INTERFACE)

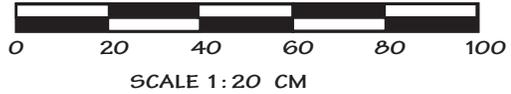
(ZONE B3 WITH POSSIBLE FEATURES)

(BASE OF LEVEL - 110) @ / 1.0 AMSL

|                         |
|-------------------------|
| MAP: 35                 |
| LOCATION: YAT KITISCHEE |
| SITE: 8PI1753           |
| UNIT: 908N-914E(2 x 2)  |
| DATE: 7-1-94            |
| DESCRIPTION: BURIAL #1  |



912.N/ 918 E



**DESCRIPTIONS**

- (A) 10 YR 4/1 DARK GRAY SAND WITH VERY FEW SHELL (ZONE B-3)
- (B) 10 YR 3/1 VERY GRAY SAND WITH CRUCSHED SHELL, POSSIBLE FEATURES
- (C) 10 YR 3/1 VERY DARK GRAY SAND
- (D) 10 YR 4/1 VERY DARK GRAY SAND WITH CHARCOAL FLECKING-POSSIBLE PIT STAIN TURNED INTO FEATURE

\* SEE MAP FOR ADDITIONAL STAINS  
 AFTER CLEANING THE FLOOR A SECOND TIME, ZONE C AND ADDITIONAL FEATURES APPEARED.  
 ANOTHER MAP WITH THESE FEATURES WAS MADE AT THE SAME ELEVATION AS THIS MAP. (MAP #16)

**APPENDIX A**  
**SUGGESTED REFERENCE LIBRARY:**  
**FEDERAL AND STATE LAWS, REGULATIONS,**  
**STANDARDS, AND GUIDELINES**

## **FEDERAL HISTORIC PRESERVATION LAWS**

(Source: *Federal Historic Preservation Laws*. US Department of the Interior, National Park Service, Cultural Resource Programs, Washington, D.C., 1993)

### **Laws Governing National Historic Preservation Programs**

Historic Sites Act of 1935  
National Historic Preservation Act of 1966, as amended

### **Laws Governing National Historic Landmarks**

Historic Sites Act of 1935  
National Historic Preservation Act of 1966, as amended  
Section 1a of the National Park Service Organic Act  
Section 9 of the Mining in the National Parks Act of 1976

### **Laws Governing the Federal Archeology Program**

Antiquities Act of 1906  
Archeological and Historic Preservation Act of 1974  
Archaeological Resources Protection Act of 1979  
Abandoned Shipwreck Act of 1987  
Native American Graves Protection and Repatriation Act

### **Laws Governing Federal Preservation Tax Incentives**

Rehabilitation Credit: Section 47 of the Internal Revenue Code  
Conservation Easements: Section 170(h) of the Internal Revenue Code

### **Other Major Federal Historic Preservation Laws**

Section 303 of the Amended Department of Transportation Act  
National Environment Policy Act of 1969  
Amtrak Improvement Act of 1974  
Public Buildings Cooperative Use Act of 1976

## FEDERAL LEGISLATION

(Source: *Introduction to Federal Projects and Historic Preservation Law*. Advisory Council on Historic Preservation and GSA Interagency Training Center, Washington, D.C. and Arlington, Virginia, 1995)

|                          |  |
|--------------------------|--|
| 16 USC Part 470          | National Historic Preservation Act of 1966, as amended         |
| 42 USC Parts 4321-4347   | National Environmental Policy Act of 1969                      |
| 16 USC Part 469          | Archaeological and Historic Preservation Act of 1974           |
| 16 USC Parts 470aa-47011 | Archaeological Resources Protection Act of 1979                |
| 25 USC Part 3001         | Native American Graves Protection and Repatriation Act of 1990 |
| 42 USC Part 1996         | American Indian Religious Freedom Act                          |
| 42 USC Part 5301         | Housing and Community Development Act                          |
| 49 USC Part 303          | Department of Transportation Act of 1966                       |

### Related Preservation Legislation

|                         |  |
|-------------------------|--|
|                         | Federal-Aid Highway Act of 1968  |
|                         | Intermodal Surface Transportation Efficiency Act of 1991   |
| 42 USC Part 12101       | Americans with Disabilities Act of 1990  |
| 16 USC Parts 431-433    | Antiquities Act of 1906  |
| 49 USC Part 303         | Section 4(f) of the Department of Transportation Act of 1966   |
| 23 USC Part 138         | Section 15(a) of the Federal-Aid Highway Act   |
| 3 CFR Part 154          | Executive Order No. 11593, "Protection and Enhancement of the Cultural Environment," reprinted in 16 USC Part 470 (1971) |
| 47 FR 30959             | Executive Order No. 12372, "Intergovernmental Review of Federal Programs"  |
| 40 USC Part 484(k)(3)   | 1972 Amendment to the Federal Property and Administrative Services Act of 1949   |
| 16 USC Parts 461-467    | Historic Sites Act of 1935   |
| 42 USC Parts 1437-1440  | Housing and Urban-Rural Recovery Act of 1983, amending the Housing Act of 1937   |
| Public Law 103-451      | National Maritime Heritage Act of 1994   |
| 40 USC Parts 601a & 611 | Public Buildings Cooperative Use Act of 1976   |
| Tax Laws                |  |

## FEDERAL REGULATIONS

(Source: *Federal Historic Preservation Laws*. US Department of the Interior, National Park Service, Cultural Resource Programs, Washington, D.C., 1993)

### Regulations Governing National Historic Preservation Programs

|                 |   |
|-----------------|---|
| 36 CFR Part 60  | National Register of Historic Places  |
| 36 CFR Part 61  | Procedures for Approved State and Local Government Historic Preservation Programs                     |
| 36 CFR Part 63  | Determinations of Eligibility for Inclusion in the National Register of Historic Places               |
| 36 CFR Part 68  | The Secretary of the Interior's Standards for Historic Preservation Projects                          |
| 36 CFR Part 73  | World Heritage Convention   |
| 36 CFR Part 78  | Waiver of Federal Agency Responsibilities under Section 110 of the National Historic Preservation Act |
| 36 CFR Part 800 | Protection of Historic Properties (Advisory Council on Historic Preservation)                         |

### Regulations Governing National Historic Landmarks

|                |                                     |
|----------------|-------------------------------------|
| 36 CFR Part 65 | National Historic Landmarks Program |
|----------------|-------------------------------------|

### Regulations Governing the Federal Archaeology Program

|                |  |
|----------------|--|
| 43 CFR Part 3  | Preservation of American Antiquities                                   |
| 43 CFR Part 7  | Protection of Archaeological Resources                                 |
| 43 CFR Part 10 | Native American Graves Protection and Repatriation Act                 |
| 36 CFR Part 79 | Curation of Federally Owned and Administered Archeological Collections |

### Regulations Governing Federal Preservation Tax Incentives

|                                  |  |
|----------------------------------|--|
| 36 CFR Part 67                   | Historic Preservation Certifications   |
| 26 CFR Parts 1 and 602           | Income Tax: Investment Tax Credit for Qualified Rehabilitation Expenditures (Internal Revenue Service) |
| 26 CFR Parts, 1, 20, 25, and 602 | Income Tax: Qualified Conservation Contributions (Internal Revenue Service)                            |

### Regulations Governing Other Major Federal Historic Preservation Programs

|                    |  |
|--------------------|--|
| 23 CFR Part 771    | Environmental Impact and Related Procedures (Department of Transportation, Federal Highway Administration) |
| 30 CFR Part 700 to | Office of Surface Mining Reclamation and Enforcement End (Department of the Interior)                      |

- 40 CFR Parts 1500-1517 Regulations of the Council on Environmental Quality
- 41 CFR Part 101-17 Assignment and Utilization of Space (General Services Administration, Public Buildings Service)
- 41 CFR Part 101-20 Management of Buildings and Grounds (General Services Administration, Public Buildings Service)

## STATE LEGISLATION

Chapter 253.027, F.S. Emergency Archaeological Properties Acquisition Act of 1988  
Chapter 267, F.S. Florida Historical Resources Act  
Chapter 337.274, F.S. Authorized FDOT Agency Access to Private Property  
Chapter 556, F.S. Underground Facility Damage Prevention and Safety  
Chapter 872, F.S. Offenses Concerning Dead Bodies and Graves

### Rules of the Department of State

Chapter 1A-32 Research Permits for Archaeological Sites of Significance  
Chapter 1A-34 Historic Preservation Advisory Council  
Chapter 1A-35 Historic Preservation Grants-in-Aid  
Chapter 1A-46 Archaeological Report Standards and Guidelines

### State Guidance

*The Historic Preservation Compliance Review Program of the Florida Department of State, Division of Historical Resources: A Guide to the Historic Preservation Provisions of State and Federal Environmental Review Laws (1990)*

Division of Historic Resources, Bureau of Archaeological Research, *Collections Guidelines, Minimum Requirements for B.A.R. Acquisition and Accessioning*

## **ADVISORY COUNCIL ON HISTORIC PRESERVATION PUBLICATIONS**

### **Council Information**

1. Fact Sheet: About the Council
2. Fact Sheet: Council Members
3. Fact Sheet: Professional Staff

### **General Information**

1. Fact Sheet: International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM)
2. Fact Sheet: Council Publications
3. Fact Sheet: A Guide to Selected Key Preservation Organizations
4. Fact Sheet: State Historic Preservation Officers and Deputies
5. Fact Sheet: Federal Agency Preservation Officers and Contacts

### **Working with Section 106 and Federal Preservation Regulations**

1. 36 CFR Part 800: Protection of Historic Properties
2. Fact Sheet: A Five-Minute Look at Section 106 Review
3. Section 106, Step-by-Step
4. Council Training and Educational Outreach
5. Introduction to Federal Projects and Historic Preservation Law-A Training Course
6. Preparing Agreement Documents: How to Write Determinations of No Adverse Effect, Memoranda of Agreement, and Programmatic Agreements Under 36 CFR Part 800
7. Identification of Historic Properties: A Decisionmaking Guide for Managers
8. Public Participation in Section 106 Review: A Guide for Agency Officials
9. The Section 110 Guidelines: Annotated Guidelines for Federal Agency Responsibilities under Section 110 of the National Historic Preservation Act
10. Fact Sheet: Programmatic Agreements Under Section 106
11. Fact Sheet: Section 106 Participation by Applicants for and Recipients of Federal Assistance, Permits, and Licenses
12. Fact Sheet: Section 106 Participation by Indian Tribes, Native Hawaiian Organizations and Other Native Americans
13. Fact Sheet: Section 106 Participation by Local Governments
14. Fact Sheet: Section 106 Participation by State Historic Preservation Officers
15. Fact Sheet: Consulting the Council Under Section 111 of the National Historic Preservation Act.

### **Archaeology**

1. Fact Sheet: Consulting About Archaeology Under Section 106

## NATIONAL REGISTER BULLETINS

These bulletins provide essential guidance on a variety of topics related to the survey, evaluation, registration, and listing of historic properties in the *National Register*. Bulletin numbers not listed are under revision, or the guidance has been incorporated into another bulletin. The majority of bulletins are offered free of charge from Interagency Resources and can be ordered by writing: *National Register of Historic Places, National Park Service, U.S. Department of the Interior, P.O. Box 37127, Washington, D.C. 20013-7127*. Following is a list of Bulletins that can be ordered.

- NRB 4 Contribution of Moved Buildings to Historic Districts (test form)
- NRB 5 Tax Treatments of Moved Buildings
- NRB 7 Definition of Boundaries for Historic Units of the National Park System
- NRB 8 Use of Nomination Documentation in the Part I Certification Program
- NRB 12 Definition of National Register Boundaries for Archeological Properties
- NRB 13 How to Apply National Register Criteria to Post Offices
- NRB 15 How to Apply the National Register Criteria for Evaluation
- NRB 16A National Register Registration Form, How to Complete
- NRB 16B Multiple Property Documentation Form, How to Complete
- NRB 17 Certification of State and Local Statutes and Historic Districts
- NRB 18 How to Evaluate and Nominate Designed Historic Landscapes
- NRB 19 Policies and Procedures for Processing National Register Nominations
- NRB 20 Nominating Historic Vessels and Shipwrecks to the National Register of Historic Places
- NRB 21 How to Establish Boundaries for National Register Properties
- NRB 22 Guidelines for Evaluating and Nominating Properties That Have Achieved Significance Within the Last Fifty Years
- NRB 23 How to Improve the Quality of Photographs for National Register
- NRB 24 Guidelines for Local Surveys: A Basis for Presentation Planning
- NRB 26 Certified Local Governments in the National Preservation Program
- NRB 28 Using the UTM Grid System to Record Historic Sites
- NRB 29 Restricting Information About Historic and Prehistoric Resources, Guidelines
- NRB 30 Rural Historic Landscapes, Guidelines for Evaluating and Documenting
- NRB 32 Properties Associated with Significant Persons, Guidelines for Evaluating and Documenting
- NRB 33 National Register Information System Manual for State and Federal Users
- NRB 34 Aids to Navigation, Guidelines for Evaluating and Nominating to the NRHP
- NRB 35 National Register Casebook: Examples of Documentation
  - I. Multiple Property Submissions
  - II. Examples of Maritime Nominations
  - III. Nominations using Concise Documentation
- NRB 36 Historic Archeological Sites and Districts, Evaluating and Registering (Pending)
- NRB 38 Traditional Cultural Properties, Guidelines for Evaluating and Documenting
- NRB 39 Researching a Historic Property

- NRB 40      America's Historic Battlefields, Guidelines for Identifying, Evaluating, and Registering
- NRB 41      Cemeteries and Burial Places, Guidelines for Evaluating and Registering
- NRB 42      Historic Mining Properties, Guidelines for Identifying, Evaluating, and Registering

## PRESERVATION BRIEFS

1. The Cleaning and Waterproof Coating of Masonry Buildings
2. Repainting Mortar Joints in Historic Brick Buildings
3. Conserving Energy in Historic Buildings
4. Roofing for Historic Buildings
5. Preservation of Historic Adobe Buildings
6. Dangers of Abrasive Cleaning to Historic Buildings
7. The Preservation of Historic Glazed Architectural Terra-Cotta
8. Aluminum and Vinyl Siding on Historic Buildings
9. The Repair of Historic Wooden Windows
10. Exterior Paint Problems on Historic Woodwork
11. Rehabilitating Historic Storefronts
12. The Preservation of Historic Pigmented Structural Glass
13. The Repair and Thermal Upgrading of Historic Steel Windows
14. New Exterior Additions to Historic Buildings: Preservation Concerns
15. Preservation of Historic Concrete: Problems and General Approaches
16. The Use of Substitute Materials on Historic Building Exteriors
17. Architectural Character
18. Rehabilitation Interiors in Historic Buildings
19. The Repair and Replacement of Historic Wooden Single Roofs
20. The Preservation of Historic Barns
21. Repairing Historic Flat Plaster – Walls and Ceilings
22. The Preservation and Repair of Historic Stucco
23. Preserving Historic Ornamental Plaster
24. Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches
25. The Preservation of Historic Signs
26. The Preservation and Repair of Historic Log Buildings
27. The Maintenance and Repair of Architectural Cast Iron
28. Painting Historic Interiors
29. The Repair, Replacement, and Maintenance of Historic Slate Roofs
30. The Preservation and Repair of Historic Clay Tile Roofs
31. Mothballing Historic Buildings
32. Making Historic Properties Accessible
33. The Preservation and Repair of Historic Stained and Leaded Glass
34. Applied Decoration for Historic Interiors; Preserving Composition Ornament
35. Understanding Old Buildings: The Process of Architectural Investigation
36. Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes

## SUGGESTED HISTORIC PRESERVATION REFERENCES

### Standards and Guidelines

*The Secretary of the Interior's Standards for Rehabilitation with Illustrated Guidelines for Rehabilitating Historic Buildings.* W. Brown Morton III, et al.

### Program/Training Information

*Federal Historic Preservation Laws.* Sara K. Blumenthal, revised by Emogene A. Bevitt

### Guidance on Historic Preservation Treatments

*Preservation Briefs.* National Park Service. Assist owners and developers of historic buildings in recognizing and resolving common preservation and repair problems prior to work.

*Preservation Tech Notes.* Provide innovative solutions to specific problems in preserving cultural resources - buildings, structures, and objects.

NPS Reading Lists. Bibliographies compiled and annotated by preservation experts provide essential background for undertaking responsible work on historic properties.

*Technical Reports.* Address in detail problems confronted by architects, engineers, government officials, and other technicians involved in the preservation of historic buildings.

*Presentation Information.* The National Trust for Historic Preservation's *Information* series provides concise information on basic and frequently used preservation techniques.

*National Register Bulletins.* These bulletins provide essential guidance on a variety of topics related to the survey, evaluation, registration, and listing of historic properties in the National Register.

*Recording Historic Structures.* John A. Burns, editor.

### Catalogs

*Catalog of Historic Preservation Publications.* National Park Service.

*Fact Sheet: Council Publications.* Advisory Council on Historic Preservation.

## **HISTORIC PRESERVATION GUIDELINES**

(Source: *Federal Historic Preservation Laws*. US Department of the Interior, National Park Service, Cultural Resource Programs, Washington, D.C., 1993)

Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines

Guidelines for Federal Agency Responsibilities, Under Section 110 of the National Historic Preservation Act

Abandoned Shipwreck Guidelines

**APPENDIX B**  
**GLOSSARY OF KEY TERMS**

## GLOSSARY OF KEY TERMS

**Adverse Effect:** An undertaking is considered to have an adverse effect on a resource when it may diminish the integrity of the resource's location, design, setting, materials, workmanship, or association. Adverse effects on cultural resources may include, but are not limited to, physical destruction, damage or alteration to all or part of a resource; isolation of the resource from or alteration of the character of the resource's setting when that character contributes to the resource's qualification for the National Register; introduction or its setting; neglect of a resource resulting in its deterioration or destruction; and the transfer, lease, or sale of the resource.

**Advisory Council on Historic Preservation:** An independent agency of the U.S. government whose members are charged with advising the President and the Congress on matters relating to historic preservation; recommending measures to coordinate activities of federal, state and local agencies and private institutions and individuals relating to historic preservation; and advising on the dissemination of information pertaining to such activities. The Council reviews the policies and programs of federal agencies in regard to compliance with the National Historic Preservation Act.

**Agreement Documents:** Legal documents resulting from Section 106 consultation that obligate the signing parties to fulfill their Section 106 responsibilities by carrying out its terms. Three kinds of agreement documents include Agreement-based Determinations of No Adverse Effect, Memorandum of Agreement, and Programmatic Agreements.

**Archaeological Resources:** The locations of precontact or historic occupations or activities that can be used to reconstruct the lifeways of cultures of the past. They may range from a single artifact to the extensive ruins of a historic military fortification.

**Area of Potential Effect:** The geographic area of areas within which an undertaking may cause changes in the character or use of cultural resources if any such resources exist. The "APE" always includes the actual site of the undertaking, and may also include other areas where the undertaking will cause changes in land use, traffic patterns, or other aspects that could affect cultural resources.

**Avoidance:** Active attempts to deflect harm to cultural resources by partial or complete project redesign or relocation.

**Certified Local Government (CLG):** Any city, town or county which meets the criteria set forth in the National Historic Preservation Act (NHPA) amendments of 1980 (P.L. 96-515). A CLG carries out the requirements of the NHPA at the local level.

**Code of Federal Regulations (CFR):** A series published by the federal government which contains codification of the general and permanent rules published by agencies of the federal government.

**Contributing Resource:** A building, site, structure, or object adding to the significance of a historic property.

**Cultural Resources:** All buildings, sites, structures, objects, and districts which are generally more than 50 years of age and which are evaluated as having significance in prehistory or history. Includes archaeological sites as well as historic structures. Synonymous with **Historic Property**.

**Cultural Resource Assessment Survey:** The process of identification, documentation, and evaluation of historical, archaeological, architectural, and traditional cultural properties.

**Debitage:** Pieces of chipped stone debris resulting from the manufacture and modification of stone tools. Also referred to as **waste flakes**.

**Effect:** An undertaking has an effect, either harmful or beneficial, on a cultural resource when the undertaking may alter characteristics of the resource that may qualify it for inclusion in the National Register.

**Eligible Resource:** A cultural resource that has been determined eligible for National Register listing by the Secretary of the Interior, or one that has not yet gone through the formal eligibility determination process but which meets the National Register Criteria of Eligibility. For Section 106 purposes, an “eligible” resource is treated in the same manner as a listed resource.

**Evaluation:** The process of determining the eligibility of a cultural resource for listing in the *National Register of Historic Places*.

**Florida Site File:** A comprehensive listing of recorded cultural resources in Florida, including archaeological sites, historic structures, bridges and cemeteries. It includes records for resources which are no longer extant.

**Historic District:** A significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development.

**Historic Structures:** Cultural resources including bridges, residences, commercial buildings, constructed features, etc. which, with few exceptions, are at least 50 years old.

**Identification:** The inventory of all cultural resources within a project area of potential effects. This is accomplished through archaeological and historic structures surveys.

**Integrity:** The authenticity of a cultural resource’s identity, evidenced by the survival of physical characteristics that existed during the resource’s historic or precontact period. The seven aspects of integrity are location, design, setting, materials, workmanship, feeling, and association.

**Lithics:** Stone tools and the debris (debitage or waste flakes) created in the process of tool manufacturer/modification.

**Memorandum of Agreement (MOA):** A kind of agreement document that is prepared when an undertaking will have adverse effects on cultural resources, and the consulting parties agree on ways to reduce, avoid, minimize or mitigate such effects. A three-party MOA is signed by the federal agency, the SHPO, and the Advisory Council; a two-party MOA is when the Advisory Council has not been involved in the consultation but receives the MOA after the federal agency has prepared it.

**Mitigation:** Any actions that reduce or compensate for the damage an undertaking may have on a National Register listed or eligible property. Mitigation may include project redesign or relocation, data recovery and documentation.

**National Historic Landmark:** A historic property evaluated and found to have significance at the national level and designated as such by the Secretary of the Interior.

**National Register of Historic Places (NRHP):** The national list of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, or culture. It is maintained by the National Park Service on behalf of the Secretary of the Interior under authority of Section 101(a) of the National Historic Preservation Act, as amended. Properties listed may be significant at the national, state, or local level.

**No Adverse Effect:** When an undertaking has an effect on a cultural resource, but the effect would not be harmful to those characteristics that qualify the resource for inclusion in the National Register. A determination of No Adverse Effect can be determined in one of two ways: either the nature of the project itself is not harmful, or the harmful effects are mitigated through preservation covenants, the retrieval of important information through data recovery, or by following the *Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitation Historic Buildings*.

**No Effect:** When an undertaking has no effect of any kind (either harmful or beneficial) on cultural resources.

**Non-Contributing Resource:** A building, site, structure, or object that does not add to the historic significance of a property.

**Preservation:** The act or process of applying measures to sustain the existing form, integrity and material of a building or structure, and the existing form and vegetative cover to a site. It may include initial stabilization work, where necessary, as well as ongoing maintenance of the historic building materials.

**Principal Investigator:** A qualified cultural resource professional responsible for the design and implementation of a cultural resources study.

**Programmatic Agreement:** A type of agreement document which sets forth means by which a whole federal agency program, or a large and complicated undertaking, will comply with Section 106 of the NHPA via an alternative to the standard process set forth in 36 CFR Part 800.

**Project Area:** For cultural resources studies the term is synonymous with the Area of Potential Effects.

**Provenience:** The position of an archaeological find in time and space, recorded three-dimensionally.

**Reconnaissance Survey:** (1) Small-scale archival or field research, designed to provide a general impression of an area's architectural, archaeological, and historic properties and their values, but not designed to produce a level of documentation sufficient to nominate a property to the National Register or determine its eligibility for listing. (2) An examination of all or part of an area accomplished in sufficient detail to make generalizations about the types and distributions of historic properties that may be present.

**Rehabilitation:** The act or process of returning a property to a state of utility through repair or alteration which makes possible an efficient contemporary use while preserving those portions or features of the property which are significant to its historical, architectural, and cultural values.

**Research Design:** A statement of proposed identification, documentation, investigation, or other treatment of a historic property that identifies the project's goals, methods, and techniques, expected results, and the relationship of the expected results to other proposed activities or treatments.

**Restoration:** The act or process of accurately recovering the form and details of a property and its setting as it appeared at a particular period of time by means of the removal of later work or by the replacement of missing earlier work.

**Rural historic landscape:** A geographic area that historically has been shaped or modified by human activity, occupancy, or intervention, and that possesses a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features.

**Secretary's Standards and Guidelines:** (48FR44716-44742) The *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* provide technical information about archaeological and historic preservation activities and methods. The *Standards and Guidelines* are prepared under the authority of Section 101(f), (g), and (h), and Section 110 of the National Historic Preservation Act of 1966, as amended.

**Section 106:** The portion of the National Historic Preservation Act that requires Federal agencies to consider the effects of their undertakings on cultural resources. The head of any such federal agency is directed to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment with regard to such undertakings.

**Section 110:** The portion of the National Historic Preservation Act that spells out the affirmative responsibilities of federal agencies for dealing with historic properties, above and beyond the agencies' Section 106 responsibilities. Section 110(a)(1) stipulates that it is the federal agencies' responsibility to preserve and use historic buildings; Section 110(a)(2) states that each federal

agency shall establish a preservation program.

**Section 4(f):** Part of the Department of Transportation Act of 1966 (amended in 1983) that states that the Secretary of Transportation may approve a transportation program or project requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge, or land of a historic site of national, state, or local significance only if there is no prudent or feasible alternative to using that land; and the program or project included all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

**Shovel Tests:** Excavation units, usually 0.5 m in diameter by a least 1 m deep, used to discover buried archaeological sites and also used to sample or probe a site before large-scale excavation.

**Significant:** a precontact or historic district, site, building, structure, or object meeting one or more of the Criteria for Evaluation used in considering National Register eligibility. Significance is achieved through association with events or important persons, distinctive physical characteristics, or the potential to yield important information.

**Site:** The location of a significant event, a precontact or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archaeological value. Examples include battlefields, campsites and shipwrecks.

**Stabilization:** The act or process of applying measures designed to reestablish a weather resistant enclosure and the structural stability of an unsafe or deteriorated property while maintaining the essential form as it exists at present.

**State Historic Preservation Officer (SHPO):** The official appointed or designated pursuant to Section 101(b)(1) of the National Historic Preservation Act to administer the state historic preservation program or a representative designed to act for the State Historic Preservation Officer. The SHPO consults with federal and state agencies during Section 106 review, reviews National Register nominations, and maintains file data on cultural resources.

**Traditional Cultural Properties:** Properties associated with cultural practices or beliefs of a living community. These practices or beliefs must be rooted in that community's history and be important in maintaining the continuing cultural identity of the community.

**Undertaking:** Under the National Historic Preservation Act, a federal action that is subject to Section 106 review. It is intended to include any project, activity, or program that can result in changes in the character or use of historic properties, if any such historic properties are located in the area of potential effects. The project, activity, or program must be under direct or indirect jurisdiction of a federal agency or licensed or assisted by a federal agency. Undertakings include new and continuing projects, activities, or programs and any of their elements not previously considered under Section 106.

**ZAPs - Low, Medium, and High:** Zones of Archaeological Potential; that is, areas of differential

archaeological site location expectancy.

**APPENDIX C**  
**LIST OF ABBREVIATIONS USED**

## LIST OF ABBREVIATIONS USED

|                  |  |
|------------------|--|
| <b>ACHP</b>      | Advisory Council on Historic Preservation              |
| <b>APE</b>       | Area of Potential Effect                               |
| <b>BAR</b>       | Bureau of Archaeological Research                      |
| <b>BHP</b>       | Bureau of Historic Preservation                        |
| <b>BMIS</b>      | Bridge Management Inventory System                     |
| <b>CFR</b>       | Code of Federal Regulation                             |
| <b>CLG</b>       | Certified Local Government                             |
| <b>CRAS</b>      | Cultural Resource Assessment Survey                    |
| <b>DEMO</b>      | District Environmental Management Office               |
| <b>DEP</b>       | Department of Environmental Protection                 |
| <b>DHR</b>       | Division of Historical Resources                       |
| <b>DOE</b>       | Determination of Eligibility                           |
| <b>DOTA</b>      | Department of Transportation Act                       |
| <b>EIS</b>       | Environmental Impact Statement                         |
| <b>EMO</b>       | Environmental Management Office                        |
| <b>F.S.</b>      | Florida Statute  |
| <b>FDOT</b>      | Florida Department of Transportation                   |
| <b>FHWA</b>      | Federal Highway Administration                         |
| <b>FR</b>        | Federal Register                                       |
| <b>FS</b>        | Field Specimen   |
| <b>FMSF</b>      | Florida Master Site File                               |
| <b>HABS</b>      | Historic American Buildings Survey                     |
| <b>HAER</b>      | Historic American Engineering Record                   |
| <b>HPZ</b>       | High Probability Zone                                  |
| <b>ISTEA</b>     | Intermodal Surface Transportation Efficiency Act       |
| <b>LPZ</b>       | Low Probability Zone                                   |
| <b>MOA</b>       | Memorandum of Agreement                                |
| <b>MPZ</b>       | Medium Probability Zone                                |
| <b>NAE</b>       | No Adverse Effect                                      |
| <b>NAGPRA</b>    | Native American Graves Protection and Repatriation Act |
| <b>NEPA</b>      | National Environmental Policy Act                      |
| <b>NHL</b>       | National Historic Landmark                             |
| <b>NHPA</b>      | National Historic Preservation Act                     |
| <b>NRHP</b>      | National Register of Historic Places                   |
| <b>PA</b>        | Programmatic Agreement                                 |
| <b>PAD&amp;R</b> | Preliminary Alternatives Development and Review        |
| <b>PD&amp;E</b>  | Project Development and Environment                    |
| <b>PSIQ</b>      | Preliminary Site Information Questionnaire             |
| <b>QA</b>        | Quality Assurance                                      |
| <b>ROW</b>       | Right-of-Way   |
| <b>SHPO</b>      | State Historic Preservation Officer                    |
| <b>SIA</b>       | Structural Inventory Assessment                        |

**USDA**  
**USGS**  
**ZAP**

U.S. Department of Agriculture  
U.S. Geological Survey  
Zone of Archaeological Potential